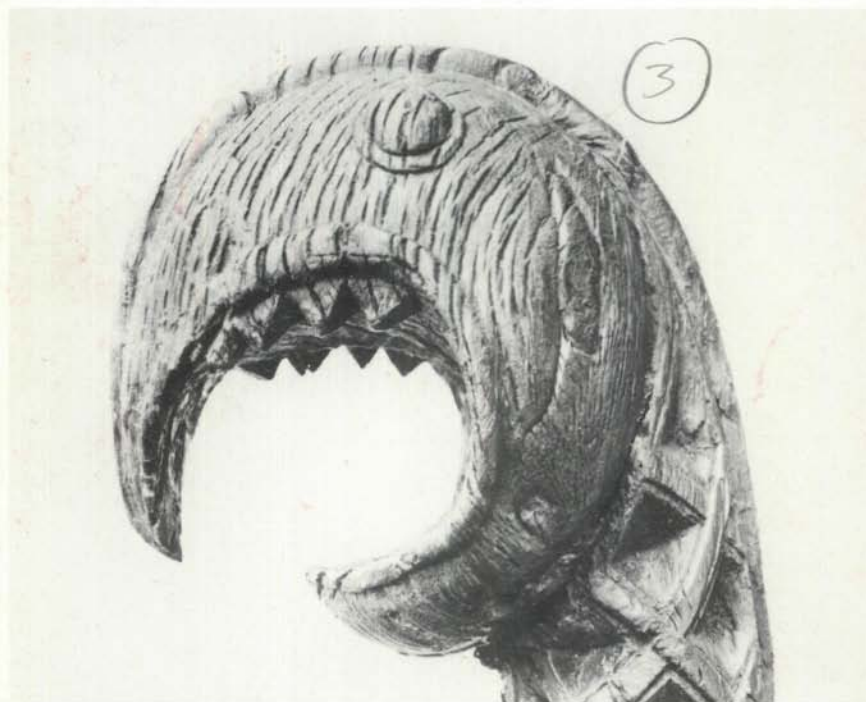


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Cover Picture: Head of Wooden Stern-Post of Viking Ship -  
River Scheldt, Belgium.

(See article: *Some Old Norse Hang-Ups: Ritual Aspects of Hávamál 134.*)

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# THE EVOLUTION OF PSYCHOPHYSICAL DUALISM IN ANCIENT INDIA: FROM THE *RIG VEDA* TO THE *SŪTRAS*

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The thesis of this paper is that the texts of ancient India show a gradual conceptual change from naturalistic animism to a fully developed psychophysical dualism. This occurred under conditions of long standing inimical social conditions that inspired the religious intelligentsia to create these abstractions.

When waves of Indo-Europeans who called themselves the Āryas, "noble ones", migrated into the Indus Valley in the second millennium BCE or earlier (Parpola, 1988), they brought with them the language that became the basis of Sanskrit and a number of languages spoken in India today. The earliest literary tradition was that of the *Rig Veda*; it was developed over a period of centuries, possibly between 1500 and 1200.

Some Indian scholars (e.g., Aurobindo, 1952, 1914-20/ 1971; Bose, 1966; Gopalacharya 1971<sup>1</sup>) interpret the *Rig Veda* (and other early works) as entirely mystical and allegorical rather than literal as Western scholars do.

Aurobindo (1952, 1914-20/1971) argued that the *Rig Veda* conceals "spiritual and psychological knowledge... in a veil of concrete and material figures and symbols which protected the sense from the profane and revealed it to the initiated" (p. 63). Thus it is a secret mystical system deliberately disguised to appear naturalistic. Here "psychological" means "supernatural." Gopalacharya (1971) quotes Aurobindo at length and presents his own allegorical translations juxtaposed with Western translations for comparison. He believes that Western scholars

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1. Gopalacharya believes the Indo-Europeans originated in the Punjab and Iran 25-30,000 years ago and that the older verses go back to that time. Dates from the Paleolithic to the Neolithic are commonly advanced by Indian scholars and differ radically from those proposed by Western scholars.

are ruled by the ethnocentrism of their own superiority and that they received their instruction from inferior Indian teachers, the true Brahmanic scholars having kept their Vedic secrets. More moderate is Bose (1966) who finds no polytheism in the Vedas but rather a "definite and systematic identification of the Vedic deities with the Ultimate Reality" (p. 23).

Mehta (1974) purports to find all modern science anticipated in the Vedas, whereas Sen (1974) holds that the *Rig Veda* is a work of sophisticated astronomy of a period earlier than 3000 BCE but written in metaphor and allegory. Taking issue with allegorical interpretations, Renou (1953/1972) argues that Aurobindo provided a "manual of modern theosophy" rather than "a document of prehistory" and that it makes for "such an obvious anachronism that it is not likely to convince any serious student" (p. 17). In other words, Renou holds that it is not he who is imposing literalism but rather Aurobindo who is imposing mystical constructs.

The pitfalls of allegorical interpretations may be seen by comparing those of different writers and noting the inconsistencies: there are no limits to what symbolic meaning can be attributed to any given text. Although these inconsistencies do not necessarily mean that the allegorical method is incorrect, the method does not provide a means of determining which if any of the proposed allegories is true. Nevertheless, one could argue that all interpretations are equally true, the *Rig Veda* having as many true meanings as there are qualified mystics to provide the allegories. But if we accept that stance it raises the questions of how we would know who is qualified and whether diverse (or any) allegorical interpretations were the intention of the authors of the verses.

The proponents of allegorization give little support to multiplicity of meanings, for they either argue for their own correct interpretation – the long oral tradition of mystical or spiritual values allegedly providing the proper source for interpretation – or that the true one has not yet been found. With no means of settling the problem of consistency the

allegorical method provides little confidence in its utility.<sup>2</sup> In addition, a strong case for an essentially literal interpretation rests on the grounds that such an interpretation makes the work congruent with other Indo-European works (Smith, 1989). And even the allegorizers accept that the *Rig Veda* is Indo-European.

The early verses<sup>3</sup> from a literal point of view are totally nature-oriented, honoring nature and nature gods as animate powers and assuring the order (*rita*) of nature. Some of the gods' names were the same as the natural object or event itself – for example, Agni, "fire" (ignite) and Ushas, "dawn" (derived from the same Indo-European root as East and Easter). Dawn, earth, sky, moon, sun, rain, and other aspects of nature are often the object of eulogies. Its primary purpose was to insure moral order and continuation of order, *rita*, but also to honor and eulogize the beauty and character of dawn, earth, sun, rain, sky, moon, and other aspects of nature. It indicated a zest and appreciation of life and the good things that life offers. The limited psychological concepts in the *Rig Veda* are concrete and centered on the body as with other Indo-European tribes (Smith, 1989). Two terms are of particular importance for the subject of this paper: *ātman* meaning "breath" and "wind" and *manas* meaning "thought" and "feeling."<sup>4</sup> *Manas* resides in the heart; life requires *manas* as well as *ātman*. "Heart" also has the function of feeling and is more often used for that function; for example, fear (1.32.14), sorrow (10.103.2), "heart-born" praise (1.60.3), and pleasure ("dearest to his heart"; 1.43.1). One verse combines *manas* and heart:

---

2. The allegories are often supernaturalistic. The earliest Vedic writings show a naturalistic animism and a superhumanism, but no supernaturalism. Superhumanism posits forces greater than human but always as a part of nature; supernaturalism posits that which is not in time and space, that which is beyond nature, *super-nature* (Spiro, 1966). Considerable evidence (Smith, 1971, 1974, 1985, 1989, 1990) exists to indicate that supernaturalism never existed in any hunting and gathering societies or early civilizations. Nor is there any evidence for it in any of the Vedas if interpreted literally.

3. The earliest verses are in the center of the ten books. As verses accreted over time they were placed at the beginning and at the end.

4. *Manas* is the name of a major psychology journal in India today.

Common, (worshippers), be your intention; common be (the wishes of) your hearts; common be your thoughts [*manas*], so that there may be thorough union among you. (10.191.4; Wilson, trans., 1850-88)

After conquering the native peoples of the Indus Valley,<sup>5</sup> the Āryas settled in a delimited area in northern India around Delhi where it appears that they expanded and filled all of the suitable land. When population continued to grow beyond the supportive potentials of the land, poverty, starvation, and misery followed. The last of the writings of the *Rig Veda* may suggest this starvation, but, because it is the lament of an old man who had come under a new ruler, it could be an individual case.

2. My ribs encircle me with pain like rival wives; poverty, nakedness, weakness bind me. My mind flutters here and there like a bird.

3. As rats gnaw at their tails, cares gnaw at me, your singer of praises.... (10.33; O'Flaherty, trans., 1981)

If this was not an isolated case but the condition of the Brahmans, the elite class who composed these verses, what must it have been like for those at lower social stations?

At this time we also find verses that become increasingly mystical, a search for an encompassing explanation from abstraction.

Upon That in the beginning, arose desire,  
which was the first offshoot of (that) thought,  
(This desire) sages found out (to be) the link between the  
existent and the non-existent,

---

5. The Āryas may have found it easier to dominate these people because of the weakened status of the Indus Valley peoples due to the periodic flooding of their cities. Such flooding evidently resulted from the tectonic uplift of the Indian plate as it pushes against the Asian mainland.

after searching with the wisdom in their heart. (10.129.4; Mauer, 1975, trans.)

With the halt of further advancement, the limited space, and the growing numbers, the tribes increased their frequency of fighting one another. Difficulties in procuring needs brought sacrifices in greater frequency and lavishness; rituals became more involved: a hierarchy of priests developed who gained a greater and greater role. Even Indra, the heroic warrior god of the *Rig Veda*, was identified as a priest in the *Sāma Veda* that followed. In the *Yajur Veda*, sacrifices became the preoccupation and an enormous variety of animals are listed as being sacrificed. There are special offerings for each desire: wealth, victory, cattle, food, strength, sight, long life, etc. The obsession with sacrifice and its details grew stronger as insecurities mounted.

The sacrifices also began to include humans and the *Yajur Veda* describes them in great detail. Apparently the Indo-European tri-partite class system had hardened into a caste system, and the higher the caste of the sacrificial victims the greater the returns that were expected, although those of specific occupations were sacrificed for specific gains. (The caste system is first mentioned at the end of the *Rig Veda*.)

In the *Yajur Veda* the nature gods of the *Rig Veda* have receded to the background while Prajāpati who appeared as an abstract force in the final book of the *Rig Veda* is emphasized as the highest power. The *Yajur Veda* was a quest for the non-world where the troubles of the world did not obtain and where control of an uncontrolled world by proper sacrifice had come to prevail. Warfare was rampant and probably starvation as well. Warfare, of course, reduced productivity further and seems to have also encouraged resorting ever more to sacrifice and to escapist transcendental abstractions.

The *Atharva Veda*, referring to "fire priests", minimizes the gods while bringing to the fore magical charms and demonology, these having also appeared at the end of the *Rig Veda*. It consists in major part of spells to ward off all sorts of evils or to bring about desired results. Demons and malevolent forces

must be appeased – a contrast with reverence for gods in the *Rig Veda*. The work is uncharacteristic of the Vedas and has in it references to lunar positions. I suggest that these are typical of an agrarian people, and the work probably originated with the captive peoples of the Indus Valley.

The Āryas were subduing new lands almost continuously from the time when they fought the Dāsas and other native tribes as given in the *Rig Veda* (e.g., 4.30.15) to the time of the *Brāhmaṇas* (*Shatapatha Brāhmaṇa*, 1.2.5), written perhaps about 1000 BCE. There is little doubt that in moving into occupied lands and becoming the dominant group the Aryas engendered severe disruption and conflict. Even if the huge numbers killed that are cited in the texts are exaggerated, carnage must have been nevertheless high. Internecine warfare too seemed to be the mode of life from the time of the *Rig Veda* onward. Kosambi (1965) cites other texts to arrive at a similar conclusion, and Renou (1963/1972) concludes that the revolution in the belief system could only occur in the face of "great upheavals" (p. 20).

In the *Brāhmaṇas* the most important power was becoming that of Prajāpati, the "Who?", the undefined. At this time asceticism was growing in importance. Expiation of error was emphasized. The non-defined, the ineffable, comes to the fore as does a gloomy, pessimistic outlook of recurring deaths and rebirths. The status of women has declined to one who was submissive and quiet. The birth of a daughter was a tragedy. In these works an "unlimited" mind is present and identified with the Ultimate. In fact everything is equivalent to a vast mentalism.

Those in which an unlimited number of Mantras is employed have unlimited fruits; the unlimited is mind; mind is Prajapati, Prajapati is the sacrifice, the sacrifice rejoices in the sacrifice itself as mind in mind.... So the sacrifice obtains the worlds of heaven, all desires, all attainments, and all immortality, and acquires the preeminence, rule, and overlordship of creatures, for when it is done thus. (26.3; Keith, trans., 1920/1971)

The *Shatapatha Brāhmaṇa* gives *manas* as the one thing that is neither existent or non-existent. It also provides the first mention of metempsychosis or reincarnation. The context is that of the correct performance of laying down of the proper number and arrangement of bricks and stones in the fire alter to represent Prajāpati, the "undefined", the knowledge of which leads to immortality. All persons will be reborn whether good or evil and will receive a fate in accordance with their acts. The unworthy continue in endless cycles of death, *saṃsāra*, while the worthy, those who know the truth, are absorbed into the world-spirit. This concept was unknown among the Āryas, but cycles of life are well known among agrarian peoples, such as those whom the Āryas had conquered.

In the early *Rig Veda*, breath (*ātman*) is a life-function and its departure is the end of life. Toward the end of that work it becomes an abstract creative force. In the *Atharva Veda* it reunites with the body in the afterlife and also becomes identified with *Prajāpati* and the All. By the time of the *Brāhmaṇas* it means "self" with a spiritistic slant and embraces the individual's total powers.

Human sacrifice is first mentioned in the *Yajur Veda* and continues in the *Brāhmaṇas*. It involves a Brahman or Kshatriya (warrior cast) who, like a horse in an earlier similar practice, first wanders for a year and then becomes part of a fertility rite with the queen after his death. Human sacrifice provides the equivalent of the sacrifice of Prajāpati and thereby brings the greatest benefits. As the priests pile up the bricks of the fire alter, they wall up the heads of victims into the first row. They place the bodies in the water with which they mix the clay for bricks. The alter bricks represent the body of Prajāpati and the victims become one with him in sacrifice.

Prajāpati becomes the ultimate force and the personal Brahman. He is the source of all living beings, all the gods, all the universe, the All of all. He becomes the sacrifice itself. The piling up of the bricks of the fire alter represents the reconsti-

tution of the parts of the world after the primeval sacrifice of Prajāpati from which came the world.

Students of the Vedas usually consider them ended with the beginning of the *Upanishads*. These texts diminish the priestly role and sacrifice along with the old gods while giving new emphasis to *Ātman/Brahman*, reincarnation, meditation, and verbal magic. In the *Upanishads* the real becomes the unseen, the unimaginable, the ineffable, the inscrutable, the all of being and not being. The world of pain and sorrow is important and eventually becomes mere illusion.

There is a pursuit of the unobservable "essence" of things. Essence is the Reality. Essence is *Ātman* and "you are that". In a lesson to teach the essence of things a fig is divided and the student sees seeds. Then a seed is divided and the student sees nothing. That, his teacher says, is the essence. The essence of nothing is what is real. It is *Ātman*. And "you are that" (*tat tvam asi, Chhāndogya Up.*, 6.8.6, 6.9.4, 6.10.3, et. al). In another lesson salt is placed in water and after dissolving is found to be disseminated throughout the water and cannot be perceived. This is essence.

*Ātman* and Brahman are in essence the same. *Ātman* is defined as what is not. It

...is not this, it is not that. It is unseizable, for it cannot be seized. It is indestructible, for it cannot be destroyed. It is unattached, for it does not attach itself. It is unbound. It does not tremble. It is not injured. (*Bṛihadāraṇyaka Upanishad*, 4.2.4, Hume, trans., 1931)

Other passages say it is "incorporeal", "spotless, beyond space", "unborn", "undemonstrable", and a "unity". Here is the first fully developed supernaturalism – beyond space and time, totally beyond nature, super-nature. But once this pinnacle is reached it is not very satisfactory. There is nowhere else to go. Nothing can be done with it. "It cannot be seized"; "it is unattached". Therefore mere physical acts whether of meditation or prayer cannot affect it or be affected by it, for they are acts of a physical body while this transcendent "is unbounded".

The transcendent does not occupy time or space in which such acts occur. Some passages say that Brahman is unknowable by the senses or by teaching. Others that he is beyond understanding (*Muṇḍaka Up.*, 2.2.1) or even "above the unknown" (*Kena Up.*, 3) and beyond conception (*Kena Up.*, 11). Definitions often dwell on what he is not but occasionally declare the positive.

How can he be comprehended  
 Otherwise than by one's saying 'He is'?  
 (*Kaṭha Up.*, 6-12; Hume, trans., 1931)

In transcending being he ceases to be. Thus the logical consequences of transcendentalism is actually atheism. This the *Upanishads* seem to fleetingly recognize and then recoil from.

The problem of disperateness becomes especially marked with the question of how to start with a physical body and have it act upon the nonphysical *ātman* or how to relate the physical and nonphysical in any fashion at all.

Some of the *Upanishads* describe the *ātman* in mostly psychological terms. It is the means of seeing, hearing, smelling, speaking, remembering, desiring, and willing. *Ātman* is also Brahman and Prajāpati as well as earth, wind, space, water, light, and numerous other things. Although *manas* is sometimes equated with *ātman*, more often it retains the physicalistic characteristics of structure-function while *ātman* is the transcendental element that makes for a mind-body dualism.

The *Upanishads* emphasize austerity, nondesire, and illusion, all of which seem directed toward turning away from a painful world. Austerity leads to goodness, goodness wins the mind, the mind wins the soul, and the soul wins liberation (*Maitri Up.*, 4.3) from the terrifying prospect of repeated cycles of metempsychosis. By using yoga one becomes free of sensing and thinking; the body is relegated to a kind of limbo and one's *Ātman* unites with Brahman. The *Muṇḍaka Upanishad* states that "being without desire" (3.2.1) is necessary in order to avoid rebirth. The *Bṛihadāraṇyaka Upanishad* requires being freed from desire, then equates desire with *Ātman* (4.4.6).

According to the *Maitri Upanishad* the body is vile and afflicted with both biological and psychological deficiencies. Therefore "what is the good of enjoyment of desires?" Not much is left of the Vedic belief system after the *Upanishads*.

After the *Upanishads* came the *Sūtras*. These were written about 600-200 BCE. Perhaps the most influential of these is the *Vedānta Sūtra* that forms the basis of *Vedānta* ("end of the Vedas") philosophy. It emphasizes the theology of the *Upanishads* over Vedic ritual. In the *Shvetāshvatara Upanishad* the word *māyā* that formerly meant "power" is transformed into "illusion" as a means of dealing with logical contradictions in the teachings of the *Upanishads*. At first this refers only to a deception about the spiritual self; but eventually, in the commentaries of Shankara on Bādarāyans, even the tangible physical qualities of the world, those known to the senses, are but illusion. All but Brahman is internal and mental. Thus, the physical world of *manas* with its thoughts, feelings, and perceptions is only *māyā*, and one can know one's true self only through *ātman*, pure spirit. Only Brahman is real and external and he produces the world of appearance in a series of emanations. Words of the scriptures are related to their meanings in an eternal universal manner, and their semantic analysis replaces finite perceiving and reasoning as a guide to further behavior. Because *Vedānta* allows only the nonphysical, it may be claimed that it does not comprise a psychophysical dualism as contrasted with *Sāṅkya* which posits both spirit and matter as real. But *Vedānta* is in continuity with this dualism; it took the next step of incorporating everything into supernaturalism, leaving no physical world at all, and it continues to imply a physical-nonphysical dualism by contrasting supernaturalism with an illusory physical world. Whatever label one gives *Vedānta*, it is clearly the end point of the evolution from naturalism to supernaturalism.

The *Sūtras* provide the first systematic psychology including such topics as sensing, thinking, knowing, and imagining. In the *Nyaya Sūtras*, by Gotama about 550 BCE, each sense has its own object; but there is the necessity for an additional thing,

atman, to unite separate sensory elements into wholes. Even the images of the two eyes must be united by *ātman*.

When we see an acid substance, water overflows our tongue. In other words, in virtue of the operation of our visual sense there is an excitement in the sense of taste. This would be impossible unless there was a soul distinct from the senses. The soul seeing the acid substance remembers its properties; and the remembrance of the acid properties excites the sense of taste. (3.1.12; Gotama, 1913/1973)

Knowledge resides in *ātman*, not in the body or in *manas*. Awareness too is in *ātman*, not *manas*; for *manas* depends on *ātman*. *Manas* links each sense with *ātman*, and *ātman* acting on *manas* produces imagination, desire, volition, feeling, and knowledge. The senses too depend on this linkage. The eye cannot see its own seeing and so *manas* must be acting on it. But neither can *manas* see its own seeing; what it sees must be seen by *buddhi*, intellect. And something else must see what *buddhi* is seeing. That is *ātman*. There it ends, but another account adds that Brahman must see what *ātman* sees. The physical/nonphysical/inner-outer dualism that evolved throughout a millennium became an integral part of this first systematic psychology in human history.

### Summary and Conclusions

In the face of long standing, dire life conditions an intelligentsia consisting of the Brahman priesthood constructed a supernatural and psychophysical world whose evolution can be traced from the later books of the *Rig Veda* to a fully developed form in the *Upanishads*. It appears that the asceticism and meditation that was intertwined with this together with procedures for avoiding desire and for considering the world as illusion provided an escape from those life conditions. In the systems of philosophy that followed this, a number of distinct psychological concepts were dealt with such as perceiving, thinking, and recall. These tended to have an inner and

often mystical characteristic consistent with the evolution away from the oneness with nature of the *Rig Veda* and toward a transcendental conceptualization. The evolution of *ātman* from breath or wind to the nonphysical half of a mind-body dualism illustrates this development.

A few centuries later a parallel process in Hellenistic Europe similarly involving inimical social conditions together with an intelligentsia, the intelligentsia in this case being scholars at the School of Alexandria and elsewhere rather than a priesthood, turned the naturalistic "psyche" of Homer and Aristotle into a nonphysical thing that had attributes of a nonphysical god and which contained psychological functions.

### ACKNOWLEDGEMENTS

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## THE MATRILINY OF THE PICTS

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For some time I have been interested in the idea that native Pict and Brito-Welsh culture was more matrilineal than the Anglo-Saxon societies which overran it in the fifth and sixth centuries. My concern is with matrilineal culture in the broadest sense, the economic, social, sexual and political practices of a people whose blood ties were primarily determined by relationships among women. That such a culture survived in Britain until almost 900 A.D. is a very neglected fact of the country's early history. A complex texture of evidence offers some clear clues that the practices of matrilineal culture are hidden riches, to be rediscovered as our human background.

But Britain's matrilineal past has been for so long overlooked that the basic ground of investigation must be surveyed before we can search for treasures. In this paper I first examine the written evidence of Pictish matriliney. Except for a slight allusion in an early Irish story, and potentially relevant inscriptions that have not been translated, this turns out to be restricted to lists of, or other references to, kingly succession. Whether matriliney pertained generally to the Pictish people has remained obscure. Applying anthropological analysis to archaeological data, I argue that the spatial distribution of Tayside *souterrain* settlements in Scotland indicates matrilineal social organization. Matriliney can be seen as determining the composition of living units among the Picts of Angus until at least 500 A.D. and providing tribal identity. In addition, a motif of ornamental art links these settlements with the Neolithic period, whence tribes tracing their kinship primarily through women may have originated.

Since this argument is lengthy, I do not take up here larger questions about matrilineal culture, except to make this point: The developments so far sketched create the possibility that Grendel and his mother in the Old English *Beowulf* were taken

as types for matrilineal tribes when the poem was recited in Britain. I allude to the possibility both to provide a point of reference to more familiar Anglo-Saxon material and for its implication that hidden treasures of human possibility may have been not just misplaced but repressed, made monstrous, in subsequent periods.

Invading Saxons, Jutes and Angles found in Britain a variety of social forms, including regional structures left over from Roman administration and kingdoms, tyrannies or chiefdoms centered on towns or hill forts. In the north, tribes still existed.<sup>1</sup> These were the Picts, who have been described as having minimal political organization. "The peoples to whom Eumenius applied the collective name *Picti* at the end of the third century probably regarded themselves as separate and distinct communities bound together, if at all, only by loose confederacies summoned into existence by the menace of the Roman legions."<sup>2</sup> The Picts remained strictly matrilineal about the leadership of these confederacies long after they had united into a kingdom.

In the first chapter of the *Ecclesiastical History*, Bede attested that among the Picts succession to the eighth century kingship was based on heredity on the woman's side. He said that the Picts who first arrived in Britain got wives from the Irish, on the condition that "they should choose their king of the female royal line rather than of the male. Which practice, it is well known, they continue to this day" – "*magis de feminea regum prosapia, quam de masculine regem sibi eligerunt; quod usque hodie*

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1. We can focus very closely on one of them thanks to F.T. Wainwright, *The Souterrains of Southern Pictland* (London: Routledge and Kegan Paul, 1963), esp. 19-34. "A community like those at Ardestie and Carlungie I was too large to be a family in the narrow sense of two persons and their children, but kinship was probably important, and the composition of the group was no doubt dominated by it" (121). "It must be assumed that friendly relations existed among the communities of souterrain-builders in Angus, and it would be reasonable to infer that they were all units in a single political organization" (28).

2. F.T. Wainwright, *The Problem of the Picts* (NY: Philosophical Library, 1956), 12.

*apud Pictos constat esse servatum.*"<sup>3</sup> A similar account is found in the Preface to *Anglo-Saxon Chronicle* versions "D", "E" and "F."

Besides such references we have more direct evidence in several versions of a list of Pictish kings, the most important of which occurs in the fourteenth century *Bibliothèque Nationale* Latin MS. 4126, the Poppleton MS. A new edition and analysis of this material has been provided by Marjorie Anderson in *Kings and Kingship in Early Scotland*.<sup>4</sup> F.T. Wainwright has explained that the surviving king list "cannot by its nature prove that the Pictish right of succession to the throne was matrilinear" for the mothers are not listed, at least in the parts we can translate.<sup>5</sup> But it does prove that it was not patrilinear. [In]... the supposedly historical section of the list... fathers of the kings are named, and there is not a single instance of a son immediately succeeding his father as king. Brother succeeded brother occasionally, but this would occur under a matrilinear system, for the principle would be that a man became king through his mother and was succeeded not by his son but by his mother's son (his brother) or by his mother's daughter's son (his nephew). This, so far as one can see, was how the Pictish system worked."<sup>6</sup>

I have cited Wainwright's statement because he succinctly explains matriliney in relation to the data of the king list. A slight correction, however, needs to be made in his main assertion. It should be amended to say: Until the reign of Bred, and the demise of the Picts as an independent people, no king of the Picts immediately succeeded his father as king. The last two kings mentioned in the Poppleton MS. were

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3. John King, ed. and trans. *Baedae Opera Historica* (Cambridge, Mass: Harvard UP, 1962), I, 18. Bede's qualification, "wherever doubt arises," is generally taken as an indication only of his unfamiliarity with how matrilinear succession worked. Cf. *Problem of the Picts*, 26.

4. Edinburgh: Scottish Academic P, 1973.

5. We do not know what the formula "*Brude X, Brude Ur X*" means, by which some thirty of the kings are named - Anderson 81. I speculate below (n. 16 and p. 27). H.M. Chadwick pointed out affinities to this naming pattern in Welsh (Cunedda) and Irish (Dal Fiatach) genealogies and in place names - *Early Scotland* (Cambridge UP, 1949), 3-5.

6. *Problem of the Picts*, 26.

Uurad, who reigned from 839 to 842 A.D., and Bred. Anderson has plausibly argued that the name Ferat listed in Irish sources in place of Uurad was simply the Irish version of the Pictish name.<sup>7</sup> Irish lists call Ferat the father of Bred. Thus the last king named in our main source, the Poppleton MS., appears to have succeeded his father. The abandonment of matrilineal sovereignty marked the end of the Pictish nation. Bred's reign is described in the Irish sources as being of one month. This is supported by reliable accounts which place the beginning of the reign over the Picts of the Dalriadic Scottish king Kenneth Mac Alpin in 842 A.D., the year of the end of Uurad's kingship.<sup>8</sup> Despite the exception she brought into focus, Anderson, like Isabel Henderson, F.T. Wainwright and H.M. Chadwick considered the Pictish kingship matrilineal and developed a speculative schema for the female royal line.<sup>9</sup> Matriliney, in short, seems to have been a living system up until the end of Pictish history.

To this interpretation of Pictish sovereignty, several objections may be raised. The first king of the Picts was the eponymous Cruithne, who was succeeded, according to the Poppleton MS. and two others, by his seven sons, whose names correspond to the districts of Pictland. Thus the Pictish kingship might seem to have begun with a patrilineal dynasty. However, *Cruithni* was the Old Irish name for the northern British.<sup>10</sup> So his story would seem to be Irish in origin, and Henderson dismisses it for that reason alone as counter evidence to matriliney.<sup>11</sup> Furthermore, the antiquity of the story of Cruithne is doubtful. It may have originated in the eighth or ninth century, although the names of the sons, corresponding to regions of the country, "may be older than the Pictish kingdom itself."<sup>12</sup>

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7. *Kings* 195.

8. Isabel Henderson, *The Picts* (NY: Praeger, 1967), 96.

9. *Kings* 169; Henderson 31-33; Chadwick considered the institution both Celtic and Indo-European in origin - *Early Scotland*, 92-95.

10. K. H. Jackson, "The Pictish Language," *Problem of the Picts*, 159.

11. *The Picts*, 35.

12. Wainwright, *Problem*, 47; Anderson 79-80.

The most telling argument against the reliability of the story of Cruithne is that the regions represented by his sons' names do not include Argyll. Although some evidence of settlement and activity occurs to the south of it, the "traditional frontier" of the Picts "throughout the whole of their historical existence" was "the Forth-Clyde line."<sup>13</sup> The Romans had built the Antonine Wall to enforce this boundary from 142 A.D. to roughly 182 A.D. against the peoples who preceded the Picts. An authentic story of Pictish origins would presumably account for all the territory north of this line. But no son of Cruithne bears a name which refers to Argyll, the area of Pictland which was invaded and settled after 464 A.D. by the Dalriada of Ireland, from whom came the Kenneth Mac Alpin already mentioned. Thus the story of Cruithne must have come into being at some point after the extent of Pictland had been reduced by Dalriadic incursion and "can hardly go back as far as the fifth century."<sup>14</sup>

Aside from Cruithne and his sons, an objection to the authenticity of matrilineal sovereignty among the Picts might still be raised on the grounds that the ruler was always a man. An indication of sex is not given in about the first third of the historical list, in the Poppleton MS.<sup>15</sup> for the approximately thirty rulers all named Brude,<sup>16</sup> and in a few other cases. But

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13. Wainwright, *Problem*, 4; supported by Bede, *Ecclesiastical History*, I, 1 and I, 14 where the Scots go home to Ireland (*Hiberni domus*). But see Alan Lane, "Some Pictish Problems at Dunadd," in *Pictish Studies*, J.G.P. Friell and W.G. Watson, eds. (Oxford: BAR British Series 125, 1984), 45.

14. *Early Scotland*, 81.

15. Two Irish versions of the king list not published by Anderson call all the Brudes males. See *Early Scotland*, 3.

16. Of uncertain meaning and origin, the word is considered by Jackson to be possibly non-Indo-European (*Problem*, 143-144). T.F. O'Rahilly thought the word "possibly related to... or identical with" the Irish name *Bruíde*, and cited additionally a *Book of Leinster* pedigree where the name *Brudi* occurs - *Early Irish History and Mythology* (Dublin: Institute for Advanced Studies, 1946), 365. Anderson suggested *Brude* was the Irish form of Pictish *Bred* or *Bryd* (82). But Chadwick considered *Brude* "the original form" (*Early Scotland*, 15) as did Jackson. O'Rahilly opined that the early Pictish short *u* was unrounded and tended toward *i* or *e*. From the usage of the king list, I believe *Brude* may have been a word for "descendant in the female line," a matrilineal analogue for *fæderenmæg*, "father-relative" of *Beowulf* 1. 1263 and for *ryht fæderen cyn*, "true

whenever gender is specified, the ruler is a man. However, all of the rulers on the list proving to be males would not make Pictish sovereignty non-matrilineal. Wainwright's analysis of matriliney, quoted above, presumed a male ruler in each instance. What is at issue is whether the Pictish system for computing entitlement to the crown followed blood descent only through women. By almost all indications, it did.

When centralized leadership among the Picts became hereditary, the inheritance was reckoned on the basis of kinship through women. The kingship took this form presumably because matriliney at that point constituted the basis of the Pictish social fabric. In other words, female blood relationships determined tribal organization, with tribal identity nominally defined by descent from a common female ancestor.

This conclusion about the Picts, however, depends on inference, primary evidence being lacking. H.M. Chadwick's writing has pointed this direction most clearly. I will sketch three lines of argument that Pictish society as a whole was matrilineal which are based on his insights about the written record. Thereafter I will advance a fourth, grounded in the physical remains discovered by archaeology.

(1) Several texts survive of a brief story of Irish origin which states that matriliney pertained to all forms of inheritance in Pictish society. In this very spare account, soldiers from Thrace helped the last of the mythical invaders of Ireland, the Sons of Mil, in a campaign in Germany. Then the Thracians, who are thereafter called *Cruithni*, were given daughters of the Irish as wives, and settled in two of the regions associated with the historical Picts. "So it is through their mothers that they succeed to the sovereignty and every other kind of inheritance, since this condition was imposed upon them by the men of Ireland" — "*Po conad iar mathra gabait*

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paternal kinship" in the *Anglo-Saxon Chronicle* for 755. If the word were Indo-European, which I think possible, it could be cognate with Mn.E. *brood*, "offspring," considered a derivative of \**bro*, "warm or heat." "The primary meaning is that which is hatched, or produced by means of warmth," said W.W. Skeat, *Etymological Dictionary of the English Language* (Oxford: Clarendon, 1963); in other words, the term originally applied to progeny of a female fowl.

*flaith* ⁊ *cach camarbus olcheana iarna nascad forru o fearaib Erind*."<sup>17</sup> Two versions of a closely related story probably date from the ninth century.<sup>18</sup> These accounts may have a historical basis in the arrival of Iron Age Celtic invaders in the north before Roman conquest reached the British Isles. But we will see reason below to identify matriliney with the natives of that era.

(2) Chadwick discerned a peculiar fact about the genealogies of the Clans of Scotland. Nearly all of these patrilineal family trees trace back to an Irish ancestor, but each of them involves a chronological gap of at least two hundred years (sometimes much more) before a date sometime in the tenth, eleventh or twelfth centuries when an apparently trustworthy series of names begins. Nothing in the genealogies suggests the existence of such a gap; they read as continuous lists. Chadwick concluded that the gaps resulted from the impossibility of applying patrilineage back into the Pictish period; that the Picts must have computed kinship by matriliney; and that this system must have lasted among the northern Picts some two centuries longer than in the south.<sup>19</sup>

(3) Keeping track of paternity was not the original pattern of the historical part of the king list. Only the names and reign lengths are provided for most of the first twenty rulers. We are told of Cinioiod that he is "*filius* Arcois"; Dectotr'ic is "*frater* Diu"; Breth is "*filius* Buthut." But not until Talore early in the fifth century, the twentieth king in the Poppleton list, do we begin to be told regularly of the ruler's father. That the mothers of the rulers do not appear to be listed meant to Anderson that only one maternal family tree was involved: if the reign were being rotated among descendants of different matrilineal lines a record of the pattern would have been kept. The

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17. Text from M.E. Dobbs, "The History of the Descendants of Ir," *Zeitschrift für Celtische Philologie*, XIV (1923), 64; the translation is Chadwick's, *Early Scotland*, 86. Heinrich Zimmer also saw this passage as showing matriliney to be a broad principle of Pictish society - "Matriarchy Among the Picts" in George Henderson, ed., *Leabhar Nan Gleann* (Edinburgh: Norman Macleod, 1898), 18.

18. *Early Scotland*, 85 n. 3, 86.

19. *Early Scotland*, 95-97.

(below p. 39) Brude list may record a rotation between lineages represented by the two most common Pictish symbols. In any case, the late addition of paternal information in the list implies that initially this information had no priority, as could have been the case among groups in which kinship and indeed tribal membership was based on matriliney.

(4) The souterrain-building communities of Angus give new evidence that matrilineal kinship was pervasive among the peoples who became the Picts. Their geographical layout indicates that they were organized on the basis of female kinship.

The word *souterrain* refers to an underground chamber, usually constructed of stone, and ordinarily related to an above-ground structure. Souterrains dating from prehistoric times have been found in France, Ireland, Jutland, Cornwall in Britain, and Scotland where about two hundred are known. Forty-eight of these constitute a well defined group occupying a comparatively small area, in Angus and adjacent Perthshire, to the north of the Firth of Tay (See Figure 1).

This Angus group, as Wainwright has called them, is of a distinctive type. Elsewhere souterrains are apt to be relatively small and offer cramped space for humans to hide themselves or store food and valuables. Angus souterrains, however, are more on the order of eighty feet long, ten feet wide, and six feet high. After excavations at two such sites, Ardestie and Carlungie I, Wainwright concluded that Angus souterrains were used as livestock keeps, primarily for cattle and sheep. Grain storage has since been proposed as their function.<sup>20</sup>

Each Angus souterrain was built as the focal point of a settlement which included other structures for human habitation. The souterrain was certainly the first structure on the site of Ardestie and Carlungie I. At Ardestie, during the earliest period of occupation, a stone building about twenty feet in diameter was the main dwelling. Two smaller stone buildings, also contemporary with the creation of the souterrain, may

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20. Trevor Watkins, "Where Were the Picts?" in *Pictish Studies*, 72.

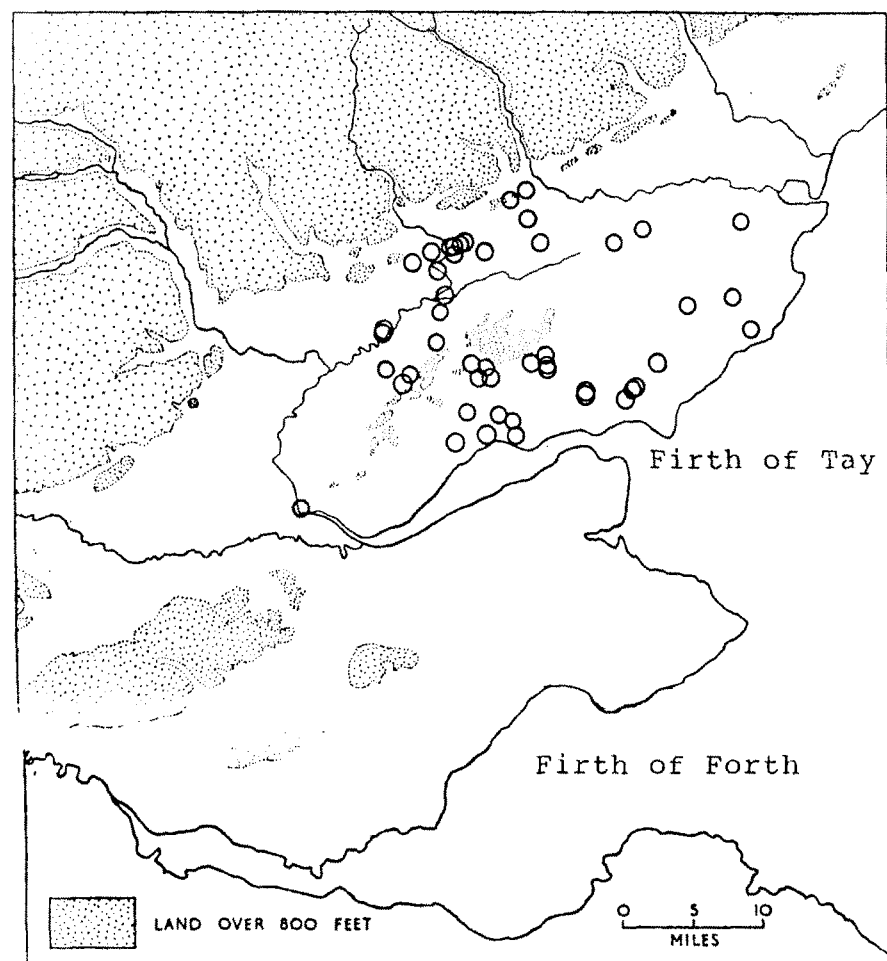


Figure 1. The 48 souterrains of the Angus group. After Wainwright.

have been used primarily as cooking/work places. The Ardestie site was occupied for perhaps three hundred years beginning about 150 A.D., and thus its inhabitants were the people who became known as the Picts. Ardestie was remodeled at least twice by people who continued to live there, with the souterrain being dismantled in the second renovation. Considering the size of the settlement, the number of permanent structures and the physical labor required to build them, Wainwright postulated that the site was the home of no less than fifteen to twenty persons. Ardestie and Carlungie "were fairly large communities, each certainly more than a father and mother and their children."<sup>21</sup> Carlungie I's population he estimated at thirty to thirty-five.

The souterrain communities were primarily farmers, producing crops by hand cultivation, obtaining milk, meat and wool from cattle, sheep and perhaps pigs. But they hunted deer and other game and harvested mussels, crabs and other food from the sea.

With this idea of what the forty-eight small circles on it mean, let us turn again to Figure 1. It is apparent that most of the souterrains are near to at least one other. The westernmost souterrain (near modern Perth) and the northeast-most (near Brechin) appear to be by themselves. The others occur in pairs, triads or larger clusters, and most of these are quite compact. By my measurements on the map of Wainwright's from which Figure 1 is derived, each circle is about a mile and a quarter in diameter. The circles representing twenty-seven of the souterrains are touching or overlapping. So twenty-seven of the Angus communities were within a mile and a quarter of at least one other. This fact is expressed in the nomenclature: Carlungie I is but a field away from Carlungie II; there are Tealings I, II, III, IV, etc.

Such a spatial relation suggests emphatically that the settlements we are studying observed matriliney as their organizing principle. David Schneider and Kathleen Gough

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21. *Souterrains*, 26, 39, 116.

have edited a comprehensive investigation by contemporary anthropologists of *Matrilineal Kinship* throughout the modern world.<sup>22</sup> This study has yielded the discovery that a physical distribution such as we find at the Tayside characterizes the living arrangements of members of a matrilineal descent group. Such a living pattern is required by a combination of three conditions:

- a) In a matrilineal descent system, women and men both exercise vital functions for the living group they are born into;
- b) The descent group is exogamous, requiring members to marry outside it;
- c) A taboo prohibits brother-sister marriage, with the usual concomitant that married sisters and married brothers do not dwell in the same living unit.

The household of a matrilineal descent group is ordinarily constituted of women related by blood ties on their mother's side, along with their spouses and children.<sup>23</sup> According to conditions "b" and "c", married male members of the descent group reside outside the unit into which they were born. But since they must return to that community to carry out various activities as members, it is convenient for them to marry into a living group which is physically separate but located nearby. In the words of David Schneider:

For matrilineal descent groups, the greater the spatial separation, the less the degree to which either sex can fulfill its obligations to its group. Where communities are spatially distinct yet near each other, these difficulties are minimized, so that distinct matrilineal monolineage communities might only be expected under such circumstances.<sup>24</sup>

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22. Berkeley: University of California Press, 1961.

23. I think it wrong to "assume" that the Picts were polygynous and therefore avunculocal as Anthony Jackson did in "Pictish Social Structure and Symbol-Stones," *Scottish Studies*, 15, Part 2 (1971), 123.

24. "Introduction," *Matrilineal Kinship*, 27. Patrilineal groups commonly show greater dispersal because women play a lesser role and there is thus not the need for brothers and exogamous sisters to cooperate in the affairs of a group.

A network of small communities, distinct from, but close by one another, characterizes the living arrangements of female kinship groups, each made up of descendants of a common ancestor. The souterrain communities of Angus certainly embody such a network. Matrilineal monolineage descent groups would therefore seem to have constituted the households.

Schneider also observed, conversely, that: "Isolated communities (or smaller groups) consisting of matrilineal core and in-marrying spouses are extremely difficult to maintain."<sup>25</sup> We have already seen that only two of the 48 Angus souterrains are isolated. But even these may not have been so in the Pictish period. The 48 souterrains are considered "known," whether or not excavated. Other locations are "likely" and, even more certainly, many souterrains were discovered and destroyed during centuries of farming practice. Besides the apparently isolated "known" souterrains, there is one separated by over three miles from the next nearest; one separated by over two and a half miles; four others are separated by over two miles. The other forty are within two miles of at least one other.<sup>26</sup> Most are that close to more than one other.

In the center of the distribution in Figure 1 occur two clear clusters of four souterrains. Below them occurs a cluster in which four are fairly evenly separated. In the upper center of the distribution occurs a cluster of five very heavily overlapped with several others around it. Thus at least four times we find four or more souterrains arranged together in a tight group. I suggest the Angus souterrain settlements, which Wainwright considered to be united in a "single political organization" (n. 1, above), consisted of at least four different exogamous sub-groups of a matrilineal tribe.<sup>27</sup> This means that members of one sub-group would have had at least three others in which

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25. *Matrilineal Kinship*, 27.

26. Of great interest, therefore, is the assessment that 80% of the Iron Age enclosed homesteads of west Cornwall lie within 1.5 km of another - Malcolm Todd, *The South West to AD 1000* (NY: Longman, 1987), 224.

27. Charles Thomas looked toward such an explanation of social structure in "The Interpretation of the Pictish Symbols," *Archaeological Journal*, CXX (1963), 69.



Plate I. Cup-and-Ring stone from Ardestie souterrain, Monikie, Angus, Scotland, the largest stone in the wall of the largest dwelling.

Plate reproduced from F.T. Wainwright, *The Souterrains of Southern Pictland* (London: Rutledge and Kegan Paul, 1963).

to find mates. Throughout Pictland, lineages of these subgroups were presumably the family trees which people invoked before the patrilineal clan genealogies, described by H.M. Chadwick, were invented about 1000 A.D.

Schneider's whole analysis is not necessary to explain the spatial configuration of the Angus souterrains. The three conditions I cited seem to me sufficient to account for the Tayside communities. Schneider presumed that positions of highest authority within a matrilineal descent group will be occupied by men.<sup>28</sup> I do not question the appropriateness of that formulation for the nineteenth and twentieth centuries, the data base of Schneider and Gough's study, and I earlier outlined reasons for seeing the Pictish king list as including only males. But I think we should understand a restriction of Pictish sovereignty to males as applying only to the office of a "High King." Both before and during the historical Pictish period, women were leaders of various peoples in north Britain. Indeed Tacitus says of the Britons generally at the end of the first century A.D. that "they recognize no distinction of sex among their rulers" – *neque enim sexum in imperiis discernunt*.<sup>29</sup>

Nora Chadwick has found the descriptions of "independent queens" of north Britain, skilled in warfare, which are provided in the Cuchulainn story "The Wooing of Emer" to be compatible with conditions known from historical sources.<sup>30</sup> The Cuchulainn material presumably refers to a period before 85 A.D., when the Romans penetrated the north.<sup>31</sup> Some of

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28. *Matrilineal Kinship*, 6.

29. *Agricola* (16), trans. and ed. by Maurice Hutton (Cambridge, MA: Harvard UP, 1914), 196-197. Donald Dudley takes this as applying only to war leadership and not civil sovereignty – Dudley and Graham Webster, *The Rebellion of Boudicca* (NY: Barnes & Noble, 1962), 48.

30. "Pictish and Celtic Marriage in Early Literary Tradition," *Scottish Gaelic Studies*, VIII, Pt. II (1958), 80.

31. T.G.E. Powell placed related stories "within the century 50 B.C. – A.D. 50, or somewhat later." "The Celtic Settlement of Ireland," *The Early Cultures of North-West Europe*, ed. by Sir Cyril Fox and Bruce Dickins (Cambridge UP, 1950), 189.

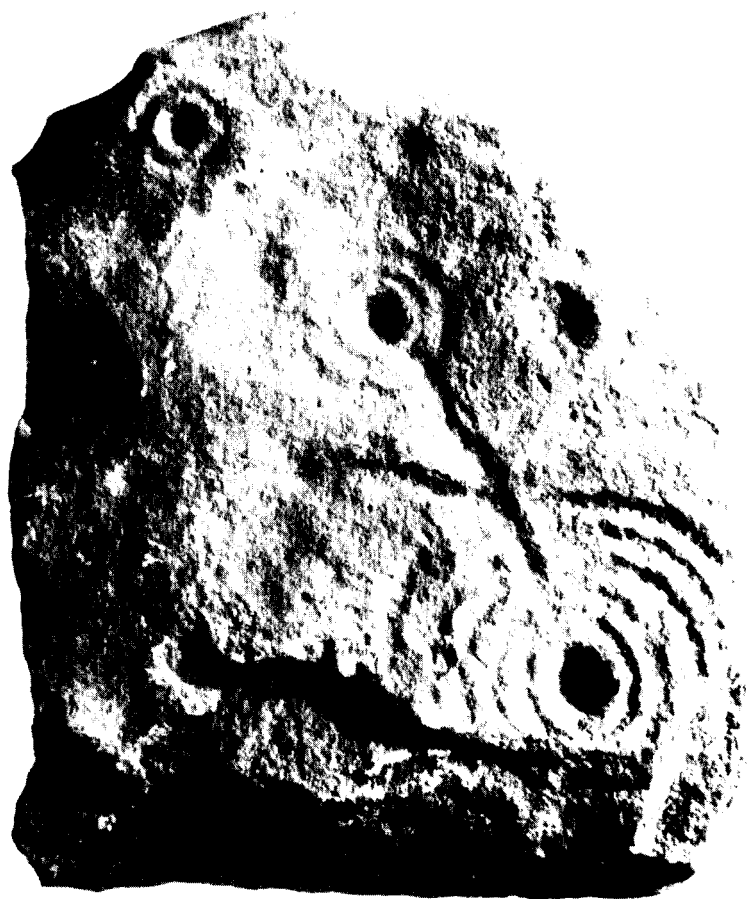


Plate II. Cup-and-Ring stone from Carlungie I souterrain, Monikie, Angus, Scotland.

Plate reproduced from F.T. Wainwright, *The Souterrains of Southern Piclland* (London: Rutledge and Kegan Paul, 1963).

the Angus souterrains may have been built by then. Carlungie, for example, is thought to be that early.<sup>32</sup>

Worthy of consideration also is the Irish tradition that the leader of the first Fomori attack was the woman Lot.<sup>33</sup> The Lot story also entails a pre-Roman legend, presumably of a time before the Cuchulainn cycle. H.M. Chadwick has identified the Fomori with "the Picts of the west coast of Scotland and the western islands."<sup>34</sup> He considered them the *broch*-builders. The distribution of the stone defensive towers called *brochs*, like the spatial layout of the Angus souterrains, may be indicative of matrilineal social organization.<sup>35</sup>

A report which can be considered historical tells us of a queen in north Britain in the seventh century. Opposing the proselytizing mission of St. Donnann, the Queen of the Island of Eigg in the Hebrides had him and the monks accompanying him assassinated in 617 A.D.<sup>36</sup> In short we do not presume that men held all important positions in Pictish descent groups.

One other factor in the analysis provided in *Matrilineal Kinship* needs to be taken up here. The keeping of large domestic livestock is a practice which often proves incompatible with matriliney. A herd of cattle usually constitutes male-accumulated wealth and the perquisites of its upkeep often become the determining factor in the living pattern of the population it supports. Evidence of cattle keeping was found in the Angus souterrains. Does this undercut the inference of matriliney?

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32. *Souterrains*, 24, 115-116.

33. R.A.S. Macalister, *Ireland in Pre-Celtic Times* (Dublin: Maunsel and Roberts, 1921), 243.

34. *Early Scotland*, 116. Cf. John W. Hedges, *Bu, Gurness and the Brochs of Orkney, Part III* (Oxford: BAR British Series 165), 27, 47-48.

35. See, e.g., Fig. 3.1 in Hedges, 2; Fig. 4 in Barry Cunliffe, "Settlement and Population in the British Iron Age: Some Facts, Figures and Fantasies" in B. Cunliffe and Trevor Rowley, eds. *Lowland Iron Age Communities in Europe* (Oxford: BAR International Supplementary 48, 1978), 9.

36. "Pictish... Marriage," 81; *Early Scotland*, 92.

The answer is no. Evidence of cattle at the Angus souterrains would be satisfied by the presence of a head or so of dairy animals at each site.<sup>37</sup> Care of a household milker may well have been a female responsibility. In one of the societies which formed the primary data base of *Matrilineal Kinship*, a dairy cow at each household was grazed and milked by women (558). Sheep and other small domesticates may have been more plentiful than cattle, for chemical action of the soil has destroyed most of the organic remains.<sup>38</sup> Sheep raising may also have been a woman's activity; even large herds of sheep are known among modern-day matrilineal tribes:

Herds of small animals pose a different problem [than cattle] and can under some conditions be handled by matrilineal societies which are also matrilocal. Thus Navaho sheep appear to have been herded mainly by women until modern times. They could be cared for near the home and thus favored matrilocal residence.<sup>39</sup>

[In matrilocal custom, newlyweds take up residence with the bride's mother.] The *Kinship* discussion then considers horses, in a passage I will quote because of slight evidence of ponies at the Angus souterrains:

Men managed horses, but horses were few compared to sheep, could be let loose rather than herded when not in use, and were used for periodic, distant raiding, so

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37. Cattle teeth and bones being "often from very young animals" (*Souterrains*, 119) shows that the lack of winter fodder continued to be a check on cattle rearing in Angus. See V. Gordon Childe, *The Prehistory of Scotland* (London: Kegan Paul, Trench, Trubner, 1935), 225. Wintering over has been found at a Caithness site [E. Macartney, "Analysis of Faunal Remains," in Horace Fairhurst, ed. *Excavations at Crosskirk Broch, Caithness* (Edinburgh: Soc. Antiq. Scot., 1984), 142-146]. Adult remains being predominantly of females would indicate a dairy basis to cattle keeping as A.J. Legge argued for the Neolithic period in "Aspects of Cattle Husbandry," *Farming Practice in British Prehistory*, ed. Roger Mercer (Edinburgh UP, 1981), 169-181. But souterrain evidence is probably too scant for such analysis.

38. *Souterrains*, 137.

39. *Kinship*, 558.

that their ownership did not determine the regular residence of men.

The keeping of household milk cows, as well as sheep and, occasionally, ponies thus accords with an interpretation of the Angus communities as matrilineal in social organization.

A cup-and-ring design appears repeatedly in the Angus souterrain sites. The motif provides clues about the origin of the matrilineal tribal structure hypothesized here on the basis of their spatial distribution. Carved in the stone of Angus dwellings, the artistic pattern gives insight as well into the religious observance of souterrain culture. Cup-and-ring stones were found by Wainwright at both Ardestie and Carlungie I. Although few Angus souterrains have been excavated, such stones are also known from Letham Grange, Pitcur II, Ruthven and Tealing III.<sup>40</sup>

The design consists of a hemispherical concavity – the cup – encircled by one or more grooves – the ring(s). Plate I shows the cup-and-ring stone from Ardestie, which was also the largest stone used to construct the largest dwelling on the site, the twenty-foot-in-diameter building mentioned above. The largest cup is encircled by three rings; another has two rings around it. Three or four additional cups appear without rings. The prominence of the stone on which these marks were cut underscores the importance of the symbol to the inhabitants of Ardestie.

A similar stone from Carlungie I (Plate II) has one cup encircled by five rings, another by two, a third by one, as well as two cups without rings. The Carlungie stone was found atop a pile of material filled-in during a remodeling of the site. But Wainwright believed originally "it may have occupied a place not unlike that of the cup-and-ring stone in the wall of [the large dwelling] at Ardestie."<sup>41</sup>

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40. *Souterrains*, 20. Cups appear in a snake design at Airlie I – "Pictish Symbols," 63.

41. *Souterrains*, 93. Inconsistencies in Wainwright's remarks about the Carlungie stone might have been resolved had he lived to oversee the book's final preparation for print. The stone had already been dug out when Wainwright inspected the site, and he

The cup and ring design is one of the oldest and most persistent symbols in the prehistory of the British Isles. The Angus souterrains, as we have seen, date from the first centuries A.D.; the chambered tomb at New Grange on the Boyne River in Ireland, which is one of the earliest places where incised cups are found, dates from 3350 B.C.<sup>42</sup> So lengthy a tradition is not easily summarized, even if it were more clearly defined by its remains. The problem is complicated by the lack, to date, of a major study of the cup symbol in its own right. I will sketch here the evidence of the symbol's continuous invocation from Neolithic sites in Ireland, Wales, Scotland and Britain, through Bronze Age finds in Scotland, Wales, Britain and Ireland, to the Scottish Iron Age and the Picts.

Eight of the megaliths at New Grange are marked with the cup symbol.<sup>43</sup> One of these stones, R 20, apparently carries not just a cup but a version of the cup-and-ring.<sup>44</sup> Additional-

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therefore considered its original position "obscure" (86). Yet he ventured that the unceremoniousness of the final handling of the stone made a religious or ritual significance for it "doubtful" (121). If the stone was rudely handled, it may have been after the site was abandoned. In any event, the finding of such stones at six sites makes their importance as a symbol in Angus souterrain culture ineluctable. Elsewhere underscoring their value, Wainwright himself (70), following Childe (*Prehistory of Scotland*, 213), suggested that the stones, rather than cut on the site, may have been brought from an earlier habitation.

42. Colin Renfrew, *Before Civilization* (London: Jonathan Cape, 1973), 90 gives radiocarbon figures. Attributing the cup-and-ring incising to this early a time accords with the date of c. 3800 B.C. (3060 b.c.) we have for the megalithic cairn at Knockiveagh in Ireland (*Before Civilization*, 145). R.J.C. Atkinson has argued that Knockiveagh's architecture is an antecedent of the Bronze Age Recumbent Stone Circles (discussed below) where the cup symbol figures prominently - "Fishermen and Farmers" in Stuart Piggott, ed., *The Prehistoric Peoples of Scotland* (London: Routledge and Kegan Paul, 1962), 18-19. This connection is reinforced by the presence of Lyles Hill pottery in a megalithic tomb, Cairnholy I in Galloway, Scotland where a late burial was accompanied by a cup-and-ring stone. See Stuart Piggott, *Neolithic Cultures of the British Isles* (Cambridge UP, 1954), 168 and below, n. 49. Atkinson used Lyles Hill pottery to trace the influence which produced the Recumbent Stone Circles.

43. Stones R 6, R 19, R 20, R 21, C 6, C 15, and kerbstones 20 and 22 as described in Sean P. Ó Ríordáin and Glyn Daniel, *New Grange* (London: Thames and Hudson, 1964), 57, 58, 60, 61, 64.

44. Ó Ríordáin and Daniel generalize about Irish megalithic art that cup-marks "never [occur] with an encircling ring" (117), but describe R 20 as having "seven circles, one

ly, seven stones are incised with concentric circles.<sup>45</sup> The appearance of concentric circles is notable because in later Scottish stone artwork which Childe considered related to the Irish tomb he analyzed concentric circles as offering a variant of the cup-and-ring design.<sup>46</sup> In addition to concentric circles, the capstone of the north chamber at New Grange is decorated with what Ó Ríordáin and Daniel said is "without doubt a motif representing in stylized form the Oculi-Goddess motif which appears so often in the... megalithic art of France and Iberia."<sup>47</sup>

These designs – cups, or in one other case cup-and-ring marks, concentric circles, and a pattern giving the name to the Eye Goddess – repeat themselves in passage grave art of the British Isles. Concentric circles are found at Dowth North and South as well as at Knowth – all near New Grange. Dowth North and Knowth both have souterrains, much smaller than those at Angus, dug into the tomb mounds some time after the initial construction. In Ireland, another tomb, Fourknocks, has circles and cup marks cut in its stones, as well as what has been described as an "animated female figure." At Tara a passage grave has concentric circles, as does Loughcrew T. Near Seskillgreen occur megalithic remains showing concentric circles and cup marks. At Knockmany the Oculi Goddess appears again in association with concentric circles. In Wales at Barclodiad y Gawres the Oculi motif may recur. In Liverpool, England we can find remains of a megalithic tomb with both cups and cup-and-ring marks, concentric circles, and the Goddess-face motif. Three chalk cylinders found in a barrow

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of which surrounds a cup-mark" (58). In *Ireland in Pre-Celtic Times*, Macalister provided a short list of finds of Irish "cup-and-circle patterns" and printed a drawing of a stone from Ath an Charbaid which bears a number of cup-and-ring marks – Figure 88. For discussion and drawings of related stone artwork see 226-232; 304-305; 338.

45. Stones L 13, R 18, R 20, C 4, the capstone of the north side chamber, kerbstones b and 17 – *New Grange*, 56, 58, 59, 62, 63, 64.

46. "The cup may be suppressed so that the centre appears like a boss in relief" – *Prehistory of Scotland*, 117.

47. This analysis has been disputed by Andrew Fleming, "The myth of the mother-goddess," *World Archaeology*, I (1969), 247-261.

at Folkton, Yorkshire show the Oculi Goddess as well as concentric circles and megalithic designs. In Scotland the Oculi symbol occurs twice in the passage grave at Holm of Papa Westray and once at Eday where concentric circles are also found.<sup>48</sup>

Related Neolithic Scottish contexts include the chambered tomb Cairnholy I in Galloway, where a cup-and-ring stone accompanies a late burial. Cup marks were cut in the passage tomb at Contin Mains in Easter Ross, which marks have been explained as due to the proximity of the Clava tombs. Nine tombs of the Clava type in northeast Scotland display cup marks, and the tombs are noteworthy as an architectural antecedent of Recumbent Stone Circles of the late Bronze Age where the use of cup-marking becomes widespread.<sup>49</sup>

One form of the Clava tombs, called a "ring cairn" by Audrey Henshall, entails three concentric circles of standing stones. The two smallest rings dress the inner and outer faces of a donut-shaped mound open at the top. About twenty such cairns exist, constituting the majority of the Clava type. Recumbent Stone Circles, of which there are about seventy in northeast Scotland, likewise consist of three concentric circles of standing stones. No mound occurs between the inner and middle ring. In the outermost circle, between the two tallest uprights, lies an enormous stone, called the Recumbent. Both in the Clava tombs and the Recumbent Stone Circles, a central opening is surrounded by concentric circles of megaliths. Possibly related are the concentric stone circles found in Kilmeen, County Cork in Ireland<sup>50</sup> and on Dartmoor in southwest England.<sup>51</sup> These architectural structures may be noted as corresponding to the design of a cup-mark surround-

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48. *New Grange*, 68-71 (Dowth); 74-75 (Knowth); 93, 95-96 (Fourknocks); 97 (Tara); Plate 57 (Loughcrew T); 101 (Seskillgreen); 102 (Knockmany); 104 (Wales); 104-105 (Liverpool); 109 (Folkton); 108 (Scotland).

49. Audrey S. Henshall, *The Chambered Tombs of Scotland* (Edinburgh UP), I, 12-39; *Neolithic Cultures*, 177, 241, 260.

50. Adolf Mahr, "New Aspects and Problems in Irish Prehistory," *Proceedings of the Prehistoric Society*, N.S. 3 (1937), 362-363.

51. *South West to AD 1000*, 101-102.

ed by rings. Like Clava tombs before them, the Recumbent Stone Circles are often decorated with cup-marks, whose presence, in Childe's view, is one of the three "significant points of agreement" between the two types of monument.<sup>52</sup>

While the ruinous condition of many of the Recumbent Stone Circles makes their function obscure, a few places where concentric circles and cup or cup-and-ring marks have been found are definitely identified as Bronze Age burial sites. Such Scottish discoveries include a cist containing a Food Vessel at Tillicoultry, Clackmannan, where the capstone bore cup-and-ring marks, and a cairn at Kilmartin in Crinan which covered a cist with forty-one cup marks.<sup>53</sup> A cist at Beoch, Ayrshire was marked with concentric circles in a design said to recall the Neolithic site at Eday, while on Carnwath Moor, Lanarkshire was found a cist on which some of the concentric circles formed a pair of eyes apparently representing the Goddess.<sup>54</sup> Near Bridgend in Glamorgan, Wales a cairn covered a cist with three cups.<sup>55</sup> Also in Wales, at Crick, Monmouthshire, a barrow covering a primary female burial had two stones in an encircling ring marked with cups, one with twenty-three, the other seventeen.<sup>56</sup>

In Cornwall cups are known at Nancekuke barrow, Portreath, at the Three Brothers of Grugith, St. Keverne, as well as at Tregulland Burrow, Treneglos, where the original structure consisted of concentric rings of timber stakes.<sup>57</sup>

In addition, the cup-and-ring design is found, in Childe's words, "on natural rock surfaces or isolated stones... all over Scotland." He described Galloway and Ayrshire as evincing "an exceptionally large number of elaborate cup-and-ring marks," and the Crinan district, as well, as possessing a "remarkable

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52. *Prehistory of Scotland*, 175

53. *Prehistory of Scotland*, 95, 115.

54. O.G.S. Crawford, *The Eye Goddess* (London: Phoenix House, 1957), 108.

55. Sir Cyril Fox, *Life and Death in the Bronze Age* (London: Routledge and Kegan Paul, 1959), 88.

56. H.N. Savory, "A Middle Bronze Age Barrow," *Archaeologia Cambrensis*, 1940, 177-178.

57. *South West to AD 1000*, 148, 91.

concentration of them." Further south into Britain, they are also "abundant in Northumberland."<sup>58</sup> Similar artwork can be seen in Ireland.<sup>59</sup> These finds without datable context are attributed to the Bronze Age.

At least four Pictish symbol stones, that is, field monuments incised with Pictish symbols, are also marked with cups. In a study which noted this, Charles Thomas analyzed the Pictish symbol called "Circular Disk and Rectangle" as deriving from "cup and ring art," both in its shape and in its internal ornament which is sometimes in the form of a "concentric inner repetition." Furthermore, Thomas considered the Pictish "Double Disc and Z Rod" as having as its "partial background" the motif of the Eye Goddess which we have been tracing.<sup>60</sup>

The Double Disc and Z Rod is the second most frequently occurring symbol on Pictish field monuments. Thomas thought it designated kingly rank (78, 81). The "Crescent and V Rod" is the most common symbol. Instead of rank, these forms can probably be better understood as lineage indicators.<sup>61</sup> The Crescent symbol may derive from a Neolithic grave tradition just as the Double Disc does. Chambered cairns of northern areas of the British Isles, such as the Clyde-Carlingford and Yarrows types, to use Piggott's nomenclature from *Neolithic Cultures*, are noted for crescentic forecourts.<sup>62</sup>

As Childe put it, the inhabitants of northeast Scotland who created the kind of megalithic monument found at Clava had

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58. *Prehistory of Scotland*, 117. Since my study was drafted a gazetteer of over 900 British sites has become available - Ronald W.B. Morris, "The Prehistoric Rock Art of Great Britain: A Survey of All Sites Bearing Motifs more Complex than Simple Cup Marks," *Proceedings of the Prehistoric Society*, 1989 (55), 45-88.

59. Macalister linked cups and concentric circles with Goddess worship - *Ireland in Pre-Celtic Times*, 221-235, 304, 338. See also Fred R. Coles, "Cup and Ring-Marked Rocks: Stronach Ridge, Broderick," *The Book of Arran*, ed. J.A. Balfour (Glasgow: Hopkins, 1910), 156-162.

60. "Pictish Symbols," 63, 59-61.

61. They have been so seen in Anthony Jackson's *the Symbol Stones of Scotland* (Stromness: Orkney Press 1984).

62. The headpiece of a Goddess-figure from Ribchester near the Hadrianic Wall has been understood as a "lunar crescent" - Anne Ross, *Pagan Celtic Britain* (NY: Columbia UP, 1967), 214-215, fig. 144.

been "scarcely affected by the Beaker invasions." By "Beaker invasions" he was hypothesizing an intrusive folk movement as the originator in the British Isles of the practice of individual burial with a new pottery form, the Beaker, where collective burial in Neolithic tombs had previously been common. Rather than evidence of invasion, the different interpretation of Beakers now being advanced considers them a sign of the introduction of ranking into societies formerly egalitarian, although this theory is by no means fully coherent.<sup>63</sup> But Childe saw the Clava population as continuing the earlier tradition unchanged by Beaker influence. Clava tombs and, later, Recumbent Stone Circles were built, he said, by "survivors of the collectivist tradition who had maintained themselves apart from the Beaker folk." The lack of Beaker influence on the peoples we are considering is important, because following the Beaker period there is no evidence of significant folk movement into what would become the Pictish area north of the Forth-Clyde line until the last centuries B.C.<sup>64</sup>

Discoveries since Childe have complicated the picture, but the Recumbent Stone Circles, and indeed the more than 800 other megalithic circles of the British Isles, continue to be regarded as "Neolithic phenomena that continued to flourish well into the second millennium [B.C.]."<sup>65</sup> Even in light of pottery sherds which show Recumbent Stone Circles in use in the Late Bronze Age, Childe said such monuments "belonged to a much older tradition going back in Scotland... to the chambered cairn builders."<sup>66</sup> He pictured a vital aboriginal culture that endured for millennia. Cups or cup-and-rings, carved in stone, symbolize that culture.

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63. Richard Harrison, *The Beaker Folk* (London: Thames and Hudson, 1980), 14, 70-71, 80, 86.

64. Piggott, "Traders and Metal Workers," *Prehistoric Peoples*, 93. Vitrified forts, usually seen as the architecture of an intrusive P-Celtic speaking population, have now been dated to the mid-first millennium B.C. - Graham and Anna Ritchie, *Scotland, Archaeology and Early History* (London: Thames and Hudson, 1981), 89.

65. Harrison, 94; Atkinson, 17.

66. *Prehistory of Scotland*, 175-176.

The clear indication of Neolithic origin for the tradition of art and architecture we are examining makes a theory of Colin Renfrew about the origin of megalithic tombs worth considering here. He explained the emergence of such tombs along Europe's Atlantic seaboard as a process which allowed tribal groups to define themselves territorially. Central to Renfrew's argument is the idea that the social group which built and used each monument consisted of "an extended family or lineage, all its inhabitants tracing their descent, or that of their spouse, back to a common ancestor."<sup>67</sup>

If the creation of megalithic and related tombs by such descent groups is accepted, then two points about them would seem to follow:

- 1) These descent groups may well have been matrilineal, with the common ancestor being female.

This hypothesis is hinted at by the continuity of the tradition from the Neolithic to the beginning of the first millennium A.D. when we find matrilineal tribes living in houses decorated with cup-and-ring marks. The idea is supported by the fact that the megalithic tomb builders were the first agriculturalists, technically horticulturalists (hand-tool cultivators), on the Atlantic seaboard of Europe. Even as late as the twentieth century A.D. ~~there~~ is some tendency for predominantly horticultural peoples to be matrilineal.<sup>68</sup>

- 2) The more settled life which the beginnings of agriculture not only made possible but also required may have consolidated a pattern of matrilocality (residence of married couples with the bride's mother), and thus contributed to the formation of matrilineal descent groups among peoples previously more loosely organized.

In other words, the territoriality that Renfrew hypothesized may have resulted from the shift from hunting/gathering to

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67. *Before Civilization*, 137.

68. David F. Aberle, "Matrilineal Descent in Cross Cultural Perspective," *Matrilineal Kinship*, 675-680.

more horticultural subsistence. Descent groups may have emerged from this shift.<sup>69</sup>

In this connection we may note Gough's finding that matrilocality seems a universal precondition of matriliney. "It would be very unlikely, if not impossible, for matrilineal descent groups to develop except out of prior matrilocal residence.... Most, if not all, matrilineal societies were once matrilocal at some point in their history." What conditions give rise to matrilocality thus becomes of special interest. In Gough's analysis: a "likely circumstance fostering matrilocal residence might be that in which women gather food, fish, or cultivate in small teams, and in which also their production sites are either stable or, if not stable, dictate the periodic movement of the residential group.... A variant condition favoring matrilocality might be one... with the women cultivating or fishing in small teams and the men hunting in a larger, community wide group."<sup>70</sup>

Female leadership and possible matriliney are indicated in the fourth millennium B.C. at Skara Brae in Orkney, an area later part of Pictland. The site had been in use for a long time before the surviving village was erected. The first dwelling of this complex was built upon the foundation burials of two elderly women.<sup>71</sup> The excavator, Childe, thought the burials dedicatory. If the settlement was understood by its inhabitants to derive from them, so might a descent group.

Skara Brae was characterized by Piggott in *Neolithic Cultures* as a "Secondary" Neolithic site because of the high level of such skills as bone tool fabrication shown in its artifacts. He postulated the survival of Mesolithic traditions in the midst of Neolithic technologies of agriculture, stock rearing and pottery. The extent and complexity of acculturation as a threshold to the Neolithic continues to be discovered.<sup>72</sup> If the

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69. See Renfrew's quotation (143) of Childe.

70. *Matrilineal Kinship*, 552-553.

71. V. Gordon Childe, *Skara Brae* (London: Kegan Paul, Trench, Trubner, 1931), 140-142, 92-93, 37.

72. Sigfried J. De Laet, ed., *Acculturation and Continuity in Atlantic Europe* (Brugge: De Tempel, 1976); Michael J. O'Kelly, "The Megalithic Tombs of Ireland," in Colin

people of Skara Brae were a Mesolithic stock who assimilated Neolithic culture the foundation burials may mark precisely a transition from matrilocality to matriliney.

2400 cubic feet of midden had accumulated at Skara Brae before the surviving village was constructed. The quantities of limpet shell probably reflect the significance of fishing in Skara Brae's economy.<sup>73</sup> Limpet preparation could have been woman's work and thus, if the early use of the site had been as a fishing camp, it may have been by custom run by women.

The cover embossment of *Neolithic Cultures* came from a Skara Brae pottery design which Piggott identified with the "face motif" of the Oculi Goddess (211-215, 328, Plate XII, no. 4). Two subsequent pottery finds with spiral designs have broadened this connection.<sup>74</sup>

Julius Caesar said that the people of the interior of Britain claimed to be aboriginal (*Gallic War*, V, 12). We have found that the culture of the northern tribes had persisted through several eras which divide the human past elsewhere. Our lead into this culture was the information that until almost the end of the first millennium A.D. Britain's northern inhabitants were noted for matrilineal succession to their kingship. We have found an archaeological indicator at the Tayside that matriliney was the basis of tribal organization. Artistic motifs of these communities point to antecedents in the Neolithic period.

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Renfrew, ed., *The Megalithic Monuments of Western Europe* (London: Thames and Hudson, 1981), 113-126; R. Dennell, *European Economic Prehistory: A New Approach* (London: Academic Press, 1983).

73. D.V. Clarke, *The Neolithic Village at Skara Brae, Orkney, 1972-73 Excavations* (Edinburgh: HMSO, 1976), 22.

74. Clarke, 20.

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## REFLECTIONS ON THE GODDESS \*DONU

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A prehistoric stream, to which one might give the name \*Donu,<sup>1</sup> has become personified in several Indo-European cultures.<sup>2</sup> In India, she was known as Dānu, mother of the arch-withholder of the waters, Vṛtra.

In the Rigveda, the divine hero, Indra, after a furious battle with Vṛtra,

"smote the serpent [i.e. Vṛtra]  
and released the waters."<sup>3</sup>

Vṛtra was

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<sup>1</sup> The hypothetical forms \*Donu and \*Donuva are, at present, merely rough estimates. No attempt is made to prove the exact Proto-Indo-European terms for the goddess or her tribe.

<sup>2</sup> Descendants of this tribe may have made their way to non-Indo-European homelands as well. Yigael Yadin (1973) argues rather cogently that the originally semi-nomadic Tribe of Dan was adopted as a Hebrew tribe, but was not of Semitic stock. This tribe was related, he believes, to the *Danuna* recorded by the Egyptians and to the people known in Greek mythology as the descendants of Danaüs. If Yadin is correct, then the eponym *Dan* would of course be a non-Semitic one, and the phonology would be Indo-European (or "Danuvian").

<sup>3</sup> Rigveda I.32.1:

*āhann āhim ānu apās tatarda . . .*

All translations in this paper are mine, unless otherwise indicated.

"crushed, his face smashed by breaking"<sup>4</sup>

and he

"lay scattered in many places."<sup>5</sup>

And then,

"She whose son is Vṛtra became one  
whose strength is low;  
Indra bore the weapon down upon her.  
The mother was above,  
the son below.  
Dānu was lying like a cow with her calf."<sup>6</sup>

Thus, the male heroic god vanquished the old female monster and her son.

Sometimes, *dānu* cannot be personified; the term is to be translated "trickling liquid" or "dew". At times, it retains the feminine gender, as in the first book of the Rigveda:

"...[for Indra's chosen] trickling liquid richly flows  
beneath the heaven..."<sup>7</sup>

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<sup>4</sup> Ibid I.32.6:

. . . *sām̐ rujānāḥ pipīṣa* . . .

<sup>5</sup> Ibid I.32.7:

. . . *purutrā. . . aśayad vyāstah*

<sup>6</sup> Ibid I.32.9:

*nīcāvayā abhavad vṛtrā putréndro asyā āva vādhar jabhāra  
ūtārā sūr ādharah putrā āsīd dānuḥ śaye sahāvatsā nā dhenūḥ*

<sup>7</sup> Ibid I.54.7:

. . . *dānur asmā úparā pīnvate dívaḥ*

Elsewhere, *dānu* has neuter gender:

"May this god Savitr, the Giver,  
Offspring of the Waters,  
richly dispensing the *dew* for us..."<sup>8</sup>

Her son, Vṛtra, was he who "lived with Dānu"; he was  
"smashed" by Indra, who then slew him.<sup>9</sup>

Vṛtra was called *Dānava*:

"Indra, devouring the swallower, slew Dānava,  
snorting against him."<sup>10</sup>

and again

"You, Indra...slaying the Dānava,  
let free the stream of waters."<sup>11</sup>

In book ten of the Rigveda, the *Dānus* are found as a class  
of demons:

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<sup>8</sup> Ibid VI.50.13:

*utā syā devāḥ savitā bhāgo no 'pām nāpād avatu dānu pāpriḥ*

<sup>9</sup> Ibid III.30.8:

*... kṣiyāntam. . . jaghantha*

<sup>10</sup> Ibid V.29.4:

*jīgartim indro apajārgurāṇaḥ prāli śvasāntam āva dānavām han*

<sup>11</sup> Ibid V.32.1:

*... indra. . . sṛjō ví dhārā āva dānavām han*

"He smashed the seven Dānus with his strength."<sup>12</sup>

The Indic Dānu was, therefore, personified as a watery female monster, mother of a serpent which was connected with rain-water. Again, she was vanquished by a heroic young warrior-god.

In the Iranian Avesta, although Dānu is not cited, mention is made of the *Dānava* tribe, along with other enemies of the Iranians:

"Then they entreated her:  
give us good fortune,  
O good, most strong, Arədvī Sūra Anāhitā,  
so that we may be defeaters of the Turian  
Dānava..."<sup>13</sup>

Dānu's people were thus "the enemy" among the Iranians.

Dānu bears a similar name in Irish mythology, obviously borrowed, where she is Danu or Donu, eponym of the mythical folk, the Túatha Dé Danann,<sup>14</sup> the "people of the goddess Danu". We are told that

"It is Danu [who is] mother of the Dé..."<sup>15</sup>

<sup>12</sup> Ibid X.120.6:

*á darṣate śávasā saptá dánūn . . .*

<sup>13</sup> Avesta V.73:

*āaṣ hīm jaiḍyən avaṣ āyaptəm dazdi.nō  
varuhi səvište arədvī sūre anāhite  
yaṣ bavāma aiwi.vanyā dānava tūrṇ . .*

<sup>14</sup> The Túatha Dé Danann were earlier known as the Túatha Dé Donann: cf. Knott and Murphy (1966): 104.

<sup>15</sup> Lebor Gabála Éirenn VI.366K:

*is i in Danand sin mathair na ndee.*

The *Túatha Dé* were very learned in the healing arts and in magic. For example, when their king, Nuada, lost an arm in the First Battle of Mag Tured, Diancecht the doctor and Credne the craftsman fashioned a silver arm and hand which functioned as well as if they were flesh. But Diancecht's son, Miach, not satisfied with this,

"put...joint to joint,  
and vein to vein  
of his hand  
and heals it  
in three times nine days."<sup>16</sup>

Further, when the sons of Mil came to Ireland to attack the *Túatha Dé*, the latter protected themselves at first by means of Druid magic:

"Their Druids and their poets  
recited poems against them  
so that the Sons of Mil  
saw that they were only sods of the bog  
and of the mountain."<sup>17</sup>

Then,

"The Druids threw magic winds after them,  
so that the lower part of the sea-gravel

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<sup>16</sup> Ibid VII.310R<sup>1</sup>:

*dorat. . .alt fri halt 7 feith fri feith dia laim dair,  
7 icaid fri teora nomaidhi*

<sup>17</sup> Ibid VIII.414:

*con ro chansat a ndruideseom 7 a filid  
airchetla dóib, conacatar-ni bátir fóit móna 7 sléibí*

was put upon the upper part of the sea."<sup>18</sup>

The chief of the Túatha Dé, Manannan mac Lir, who had an interest in maritime affairs, was described by Cormac in his Glossary (900 CE) as god of the sea.<sup>19</sup> Another chief, the Dagda, "good god", had a daughter, *Brigit*, who was worshipped as a goddess of poetry and wisdom. It is evident that this "ancient folk" represented euhemerized gods or spirit folk to the later Irish people. Thus the Túatha Dé were, in the minds of the Irish, a magical, ancient, most likely pre-Irish folk, described in a part of their mythology which tells of their earliest origins. They were a folk which had to be fought by the later Irish.

That the Túatha Dé Danann represent a people at least as old as the time of unification of the Celts is made evident by similarities between the names of their heroes and those of characters found in the Welsh Mabinogi.<sup>20</sup> The Irish sea-god Manannán can be identified with the Welsh Manawydan; the Irish Nuadu was probably the Welsh Nudd, and the Irish goddess Danu was the Welsh Dôn.<sup>21</sup>

One Welsh poem describes

"[a warrior] of promise,  
wise as Dôn."<sup>22</sup>

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<sup>18</sup> Ibid VIII.415:

*focherdsat na druidhi gáetha druidhechta na ndegaidh  
co tochradh in murgriain n-íchrach for úachtar in mara*

<sup>19</sup> Cormac, Glossary in Knott and Murphy (1966) 105:

*inde Scotti et Brittones eum deum vocaverunt maris.*

<sup>20</sup> For the name Mabinogi vs. the earlier presumed Mabinogion, v. Ford (1977): 1.fn.1.

<sup>21</sup> Knott and Murphy (1966): 105; Ford (1977): 89, 112.

<sup>22</sup> Book of Taliesin XXXVI.10:

*. . . dylaw adaw doethaw don*

In this same book, the young poet Taliesin sings his history to the king of Wales, claiming that he was

"called a cunning man  
in the court of Dôn."<sup>23</sup>

The court of Dôn is not described here, but it is likely that medieval trimmings were added to a sketchy "history" of Dôn.

The goddess \*Donu may be found in the Greek realm as well as the Indo-Iranian and the Celtic, but, as often happens in Greece, her gender has been skewed, and the myth altered so that it appears in two strains. In the first, \*Donu became the parent of the Greek Danaïds, albeit a male.

Among others, the Greek Apollodorus tells the tale of the Danaïds. King Belus had two sons, the twins Aegyptus and Danaus. Aegyptus became king of Egypt, and to him were born fifty sons. Danaus became king of Libya, and his many wives bore him daughters, who were called the Danaïds. Upon Belus' death, the twins quarreled over their inheritance, and Aegyptus proposed, in conciliation, that the fifty princes marry the fifty princesses. Danaus, suspecting a plot, fled from Libya to Argos, having prepared a ship for himself and his daughters.

He found the city of Argolis suffering from a drought, and he told his daughters to appease Poseidon, the water deity, so that he might bring a source of water to them. The Danaïd Amymone appeased the god so well that, in gratitude,

". . . Poseidon revealed to her  
the springs at [the river] Lerna."<sup>24</sup>

So the Greek avatar of the Donu-goddess too has watery

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<sup>23</sup> Ibid XVI.26:

*Rym gelwir kyfrwys yn llys don*

<sup>24</sup> Apollodorus, *Atheniensis Bibliothecae* II.1.4:

. . . αὐτῇ Ποσειδῶν τὰς ἐν Λέρνῃ πηγὰς ἐμήνυσεν.

influence; the Danaïds also invented the art of sinking wells.<sup>25</sup>

Aegyptus sent his sons to Argos, begging that they be allowed to marry the Danaïds; Danaus refused, and the princes laid seige to Argos. Since there was no source of water within the city, Danaus was forced to capitulate; the weddings were performed, but Danaus gave daggers to his daughters, and they

"killed their bridegrooms  
[on their wedding night]  
as they slept."<sup>26</sup>

According to Apollodorus, the Danaïds were purified at Zeus' command. But, the Roman poet Horace tells us that because of their misdeeds the Judges of the Dead have condemned them to the endless task of carrying waters in perforated jars:

". . . their cask, empty of water  
which passes away through the bottom. . ."<sup>27</sup>

Hence, the Danaïds were connected with the aqueous element of the goddess. Their descendant, *Danaë*, was a

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<sup>25</sup> Strabo, Geography VIII.6.8:

. . . φρεάτων . . .

ἃ ταῖς Δαναΐσιν ἀνάπτουσιν ὡς ἐκείνων ἐξευρουσῶν . . .

"...wells...which they ascribe to the Danaids,  
believing that they discovered them..."

<sup>26</sup> Apollodorus, Atheniensis Bibliothecae II.1.5:

αἱ δὲ κοιμωμένους τοὺς νυμφίους ἀπέκτειναν

Cf. Ovid, Heroides XIV.

<sup>27</sup> Horace, Odes III.11.23-28:

*inane lymphae dolium fundo pereuntis imo...*

great-great granddaughter of Danaus.<sup>28</sup> Danaë's father, Acrisius, imprisoned her because an oracle had told him that she would bear a son who would kill him, and by keeping her in prison, he hoped to keep possible progenitors away from her. However, mere walls were no match for the powerful, and rather inventive god, Zeus, who visited Danaë in a shower of gold and impregnated her. Acrisius, still hoping to forestall the fates,

"putting his daughter and her baby [Perseus]  
into a chest,  
cast it into the sea."<sup>29</sup>

The two survived, however, and the hero, Perseus, accomplished many feats, including that of slaying the *female sea monster* which Poseidon sent to devastate the land of Philistia. Perseus thus saved the monster's prey, the princess, Andromeda.<sup>30</sup> Again, the myth has been altered; Danaë was a heroine, the mother of Perseus, instead of the vile female sea monster whom Perseus slew.

Although \*Donu's two elements, her water-aspect and her monster-aspect, were divided in Greece into a diachronic myth, yet again the theme is of a young male hero killing a female monster who is connected with water.

Epic tales in other areas show similar themes. The Anglo-Saxon *Beowulf*, a hero who aided the people of the Danes, slew a monster who had been troubling them. The monster, Grendel, was similar to the Indic *Vṛtra*, but Grendel did not withhold the waters; he was *of* the waters. Grendel was finally slain in heroic fashion. Upon his death, his mother became justifiably angry, and she attempted to wreak vengeance upon her son's murderer. She, too, was overcome, however, by the heroic Beowulf:

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<sup>28</sup> Apollodorus, *Atheniensis Bibliothecae* II.2.2.

<sup>29</sup> Ibid II.4.1:

... τὴν θυγατέρα μετὰ τοῦ παιδὸς εἰς λάρνακα βαλὼν  
ἔρριψεν εἰς θάλασσαν.

<sup>30</sup> Ibid II.4.3.

"The Scylding (i.e. Danish) warrior...  
 angrily struck her"  
 [with his sword so that]  
 "it grasped her hard against her neck  
 and broke her vertebrae...  
 she fell to the floor."<sup>31</sup>

Thus, the legend of *Beowulf* incorporates the aqueous element, the female monster, and the rather gory details pertaining to the monster's slaying. The name of Grendel's mother had been forgotten by the time of the heroic Anglo-Saxons, so she was called, simply, *Grendles mōdor*, "Grendel's mother."<sup>32</sup> But one is strongly reminded of the slain Dānu and Vřtra lying "like a cow with her calf", and perhaps this monster without a name, *Grendles mōdor*, may have been the forgotten \*Donu.

Elements of the myth of \*Donu may well be borrowed from an earlier Accadian myth, which recounts the birth of the Babylonian gods from the primordial waters, Apsu and Tiāmat,<sup>33</sup> and the battle between these younger gods and their progenitors for supremacy. Apsu fought the younger god of wisdom, Ea. The

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<sup>31</sup> Beowulf 1563-68:

*yrringa slōh,  
 þaet hire wið halse,  
 heard grāpode,  
 bānhringas braec. . .  
 hēo on flet gecrong.*

<sup>32</sup> Beowulf 1538 *et passim*.

<sup>33</sup> To the Accadian *Tiāmat* cf. Hebrew *tehōm*, "sea, underground waters"; v. Pope (1955): 63. The myth of the dragon-goddess Danu shows similarities to other Semitic hero/dragon myths, besides that of *Tiāmat* and Marduk. Thus, among the Canaanites, the hero-god *Ba'al* slew the dragon, *Tannîn* (e.g. Ugaritic Manual 'nt Col.III) as Yahweh did the multiheaded Leviathan (e.g., Hesiod, *Theogony* 821 ff). Gordon (1961): 201 cites what may be the earliest attestation of the myth: a seal cylinder from Mesopotamia, dating to the third millennium BCE, showing heroes vanquishing a seven-headed monster.

latter was victorious, and Apsu's widow, Tiamât, attempted to avenge her husband's death. She fought Ea's son, Marduk, but the latter slew her; he

"loosed an arrow;  
it split open (lit. "broke") her stomach."<sup>34</sup>

#### The arrow

"plundered her inner parts. . .<sup>35</sup>  
(Marduk) captured her  
and extinguished her soul."<sup>36</sup>

So the young male hero vanquished the powerful old female monster. The Accadian myth is similar to the Indo-European myths, but in the latter the female monster avenges her son instead of her husband.

Although the myth of the female water monster is somewhat limited in geographical scope, watery remnants of her name are found throughout Eastern and Western Europe. Several rivers bear the name of \*Donu to this day.

The earliest written records of \*Donu as river name appear in Latin. For example, in his history of the Gallic war, Julius Caesar (102-3/15/44 BCE), in describing the Hercynian forest, stated that it

"...began at the borders of the Helvetians  
and the Nemetians and Rauratians,

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<sup>34</sup> Enūma Elish IV.101:

*is-suk mulmul-la ich-te-pi ka-ras-sa*

<sup>35</sup> Ibid IV.102:

*u-šal-liṭ lib-ba*

<sup>36</sup> Ibid IV.103:

*ik-mi-ši-ma nap-ša-taš u-bal-li*

and led from the area of the Danube river,  
to the borders of the Dacians and Anartians..."<sup>37</sup>

In the Geography, the Greek geographer Strabo (64/63 BCE-21 CE) describes the *Danube* as a part of the river *Ister*:

"The Marisus River flows through  
[the country of the Dacians]  
into the *Danuvius*,  
on which the Romans used to convey their gear  
for war."<sup>38</sup>

Strabo adds that the "Danuvius" is what the Romans used to call the upper part of the river which flowed through the country of the Dacians, while the lower part of the river, which flowed past the country of the Getae, was given the name *Ister*.<sup>39</sup>

The name has appeared in various Slavic languages, as Old Church Slavic *Dunav'*, Russian *Dunaj*, Serbo-Croatian *Dŭnav*, Ukranian *Dunáj*, *Dunaveć*, and West Russian *Dunavec*. The Ossetic *Don* bears the same name. In fact, the Soviet Union is replete with Danuvial water-names: the *Dnieper*, *Donets*, and *Dniester* all have names built upon this stem.

Inhabitants of the eastern shores of the Black Sea, the Latvians and Lithuanians, borrowed river water names from the Slavic: in Lithuanian, *Dunõjus*, diminutive *Dunojėlis*, is the term for the Danube. *Dunõjus* may refer to any large stream:

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<sup>37</sup> Julius Caesar, De Bello Gallico VI.25:

*Oritur ab Helvetiorum et Nemetum et Rauricorum finibus  
rectaque fluminis Danuvii regione pertinet  
ad fines Dacorum et Anartium. . .*

<sup>38</sup> Strabo, Geography 7.3.13:

ῥεῖ δὲ δι' αὐτῶν Μάρισος ποταμὸς εἰς τὸν Δανούϊον  
ὃ τὰς παρασκευὰς ἀνεκόμενον οἱ Ῥωμαῖοι τὰς πρὸς τὸν πόλεμον.

<sup>39</sup> Ibid.

"sometimes from the sea,  
sometimes from the deep water."<sup>40</sup>

Again,

"over the great sea, over the deep stream."<sup>41</sup>

The Latvian term for a "puddle", and then for a "dirty place", is *duņava*,<sup>42</sup> while *duņavas* is a term for a "little river, source."<sup>43</sup> The etymology of these terms is unclear, however, since they also seem to be connected to *duņains*, "dirty". But the river name in Latvian may be connected to that of a folk character, a "female spirit whom one has seen at the witching hour in the middle of the night":

"Duņa, Duņa, the guardian of the night  
frightens the horsemen."<sup>44</sup>

In Central Europe the Anglo-Saxons knew the river as the *Donua*, referring to

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<sup>40</sup> Cited in Fraenkel (1965): I.111:

*už mariu, už Dunojēliu.*

<sup>41</sup> Ibid:

*par didžias marias, par Dunojēļi.*

<sup>42</sup> Mülenbach (1923-25): I.438.

<sup>43</sup> Ibid: 518.

<sup>44</sup> Ibid:

*duņa, duņa, izbiedēja pieguļnieka jājējiņu.*

"...the other side of the river Donua..."<sup>45</sup>

The Donua, in Modern English, became known as the Danube.

In summary, one may deduce that there was a prehistoric, probably Neolithic tribe, which inhabited an area near a watery place, perhaps a river or stream. This water became personified as a feminine deity, and the goddess gave her name to the tribe. The tribe was probably not Proto-Indo-European but one with which the Proto-Indo-Europeans came in contact early on. The reflexes of the goddess \*Donu refer to a monstrous creature, usually an enemy, and a very powerful one. The Irish Túatha Dé Danann were, in myth, a very ancient folk with more than mortal powers. The Indic Dānu was a demon, whom Indra of necessity slew, but Dānu was also called "consort of Mitra and Varuṇa",<sup>46</sup> the great Indic gods, and this "marriage" reminds one of that between the pre-Indo-European Hera and the Indo-European Zeus. In legends and myths of other cultures, the pre-Indo-European goddess, either named for \*Donu, or connected with \*Danu's tribe, and at times *opposed* to the \*Danuva, regularly takes on the shape of a monster, one usually linked with the water, whom a young hero slays in rather morbid fashion. Thus the tribe and its deity were subdued by the Indo-Europeans.

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<sup>45</sup> Orosius [VI].XXXII-I.1 f<sup>v</sup> 25-26:

*On ðpre healfre þære ie Donua.*

<sup>46</sup> Rigveda I.136.3:

*. . .dānunas patī. . .mitras tayor varuṇo. . .*

57-86

## WOMEN'S WORK AND WORDS: SETTING THE STAGE FOR STRIFE IN MEDIEVAL IRISH AND ICELANDIC NARRATIVE

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This inquiry began with the question of whether there might have been a complementary, non-Christian source for medieval western European misogyny, a substratum, to use a linguistic image.<sup>1</sup> Early medieval Ireland and Iceland offered a rich textual base for examination. Some heuristic leads were a possible origin in Irish and Norse culture in pagan times, a more distant source in their common Indo-European heritage, or in the incomplete resolution of a confrontation between the societal organization of Old Europe and the invading archaic Indo-European culture. Or might a non-Christian misogyny have had a more banal and fundamental origin in *la condition humaine* and the differences between the sexes? The corollary question which arose is whether this animus was perhaps shared on both sides, misogyny matched by misandry, gender-specific misanthropy. Early Irish heroic tales and Icelandic sagas have no lack of scenes of strife and contention. How in these viricentric European societies and in media seemingly controlled by males do women and men relate to each other in these scenes? Can we penetrate the question of misogyny by trying to determine how and why women were portrayed in these times and these texts as deserving of male enmity, the offender perhaps condemning the offended? What are some of the reasons, objects, modes, and means of female participation in this antagonism?

As a conceptual grid on which to plot this inquiry can be imagined a pair of axes, where one groups female actors, not always agents, in categories arranged according to a rather superficial conception of power, say from goddesses through supernatural females, queens, wives and widows to beggar women, remembering that power must always be evaluated in the context of its real or potential application (see the append-

ed chart, where the reference numbers of examples discussed in the text are plotted). As will be seen, those at the human and low end of the range could be quite as effective in given circumstances as their divine counterparts. The other axis would list modes of conflictual interaction with men. A first category, "kinetic" or "overt action" is essentially that shared with males. A second category, "verbal action", can be broken down into counsel, gossip, lies, satire, threat, curse, prophecy, and thus suggests a distinctive female palette for intervention. "Parallel action" in the sense of running parallel to men's, although physical in nature, is off the central, male-dominated stage of narrative, apparently innocuous and legitimate. "Women's work", a subset of the foregoing, is typical domestic tasks, and "work", like "words" will prove a particularly rich field for exploration. A further category is "covert action", undertaken by women among other women or alone, with overtones of illegality or sacrilege; magic figures here. Finally, "passive deployment", women used by others to further their own ends. The women here are tools in the conflict and, when wielded by other women, bring the circle full round to the first category.

Starting then with a figure possessed of maximum potential power to engage in conflict and thus able to exercise it openly, we find numerous examples in the early Irish tradition (Ford). But the "war goddess" or "death goddess" that we may identify in various active female *personae* in epic tales associated with early kings is but a single aspect of a more complex and polyfunctional divine figure associated with territorial sovereignty (Mac Cana, Doan, Ó Corráin). Whether as a youthful beauty enamored of a king's reputation or as a hag, the *puella senex*, whom only the king-elect will dare to kiss or cohabit with, the territorial goddess confers legitimacy on the ruler. A darker aspect of the goddess appears as goddess of war, the fomenter of strife (Le Roux/Guyonvarc'h, Carey, Tymoczko). With one important exception, this face of the goddess is not too prominent in Irish tradition and her activity is less associated with vengeance against any one party than with the promotion of warfare as an end in itself, a good one for the

brave and victorious, a fatal one for those spiritually and materially weaker. The one important exception is the relationship between the paramount Irish hero Cú Chulainn and the Mórrígan or "Great Queen"[1]. Cú Chulainn had learned martial arts from a female teacher, Scáthach ("Shadow"), in Alba (*Tochmarc Emire; the Wooing of Emer*); she is probably best seen as an epicized hypostasis of the war goddess, with Scotland a proxy for the Otherworld. Later, in *Táin Bó Regamna (The Cattle Raid of Regamna)* Cú Chulainn accosts the Mórrígan in the guise of a Red Woman when she is driving off a cow from the territory of the Ulstermen. Then, transformed into a carrion crow, she prophesies the hardships he will meet on the Cattle Raid of Cooley [2]. In the account of the Raid itself (*Táin Bó Cúailnge*, ll. 1845ff.), he rejects her advances when she appears as a beautiful young woman while he is engaged in the sole defence of Ulster [3]. She threatens to come against him in three animal guises when he is occupied in a critical combat [4]. What is significant here is that her intervention, as heifer, wolf and eel [5], is indirect, intended not to wound him but to give his opponent the advantage through her disruption of his fighting (Sayers 1990b). As it happens, it is he who wounds her, including breaking her leg as a heifer (see below). This pattern of the inimical woman as instigator or mediator but not agent will be frequently repeated. But rather than looking for an explanation of the enmity of the Mórrígan in plot, it seems preferable to consider it the necessary condition for Cú Chulainn's achievement of his heroic destiny, to die young but live on in fame.

The "territorial goddess as goddess of death" (Bhreatnach), a concept in which transformation, like regeneration, is linked with the feminine principle, is most clearly seen in the hideous hags, whose sexuality is emphasized, that appear prior to the death of a king. Typically, these kings have in some way erred against truth and justice, often through a partial judgment or extortionate rule. As in *Togail Bruidne Da Derga (The Destruction of Da Derga's Hostel)*, pars. 38ff.), the hag appears at the hostel, accompanied by a huge churl carrying a pig, often a symbol of the Otherworld feast. The magical stance adopted by the hag,

leaning on a doorpost, on one foot and speaking in one breath, complements her prophecy of the subsequent attack on the hostel by raiders and of King Conaire's eventual death [6].

An example where the lines of causality are more clearly evident is *Aided Muirchertaig Meic Erca* (*The Death of Muirchertach Mac Erca*). In this tale a beautiful young woman seduces the king and drives his family and the Christian clergy from the royal residence. But debilitating feasts, sycophantic retainers and eventually phantom hosts are evidence that her intentions are not amicable. We learn that Muirchertach had raided her lands and killed members of her family, and that she is seeking vengeance. Like the hag of the preceding incident, she gives her secret names (Storm, Tempest, Groan, etc.), but she is clearly a hypostasis of the sovereignty goddess, bent on punishing misrule. Although engaged in acts of deception and destruction, the woman's actions are ostensibly those of the mistress in the banquet hall, running parallel to those of the king [7]. She is not the agent of the king's death; he is pierced by a spear in a doorway, burned and drowned in a cask of wine. This death is an Irish evolution of the threefold death by hanging, weapons or fire, and burial or drowning that was part of the Indo-European heritage and, in my view, is reflective of cosmic forces – sky, earth and under-earth/sea – acting in concert to destroy the failed king (Sayers 1990a).

The Irish goddess figures in their several complementary guises are also aggressive sexual consumers of men. The fertility of land, man and beast was dependent on just rule and successful territorial defence under the aegis of the king. The goddess confers her favors and withdraws them. But she must see that the land is served and so must find a fresh consort. In the Ulster cycle, Queen Medb is readily identifiable as such a goddess reduced to legendary historical status and of her it was said that she always had another man waiting in the shadow of her lover (*Táin Bó Cúalnge*, l. 37; Ó Máille) [8]. This same linkage is apparent in Norse tradition where it was said of Freyja, the goddess of love, that she also received her share of the fallen (*Gylfaginning The Tricking of Gylfi*, Ch. 24). In *Gunnlaugs saga Ormstungu* (*The Saga of Gunnlaug Serpent-Tongue*,

Ch. 14), Hrafn dreams of being mortally wounded by his rival while lying in his wife Helga's arms; compare the death of the Ulster hero Fergus Mac Róich, who receives a spear wound while swimming with Queen Medb hanging on his breast (Meyer). (For women's association with the Irish royal death tales, see Radner).

In some instances the enmity between male and female is deep-seated and may also be between two orders of being (Motz). The story of Þórr's journey to the cavernous home of the giant Geirrþøðr is ostensibly about the god's recovery of his lost hammer (Clunies Ross, Lindow). As well as fighting with the giant, Þórr must also contend with his two daughters, Gjálp and Greip, and in Eilífr Goðrúnarson's *Þórdrápa* (Snorri's *Skaldskápmál*; *The Language of Poetry*, Ch. 18) the imagery of combat is clearly that of sexual dominance (Frank 1986). Supernatural power is at stake and the war of the sexes has been chosen as its forum [9].

To turn now to verbal action, within narrative prophecy functions as a performative utterance. According to the logic of conventional causality, the forecast does not cause the events it relates, but in a narrative terms it all but makes them inevitable. Thus the seeress, like other supernatural or supernaturally endowed females noted above, does not engage in conflict but often proclaims its imminent realization. The Irish war goddess, the Mórrígan, who foretold Cú Chulainn's trials, makes a double prophecy in another tale, *Cath Maige Tuired* (*The Second Battle of Mag Tuired*, pars. 166f.), where she characterizes a peaceful, fertile kingdom under the new king, but then depicts a dystopia of societal collapse that offers striking parallels with the prophecy of the seeress in the Norse *Völuspá*, although it stops short of the cosmic apocalypse of the latter [10].

In the texts preserved from Christian Ireland and Iceland, distinctions are often blurred between divinities and supernatural or non-human powers. While there is evidence of a belief in female tutelary powers, protective of the land in Ireland, or protective of individual families in the North in the form of fetches, most of the supernatural female figures are inherently

hostile. There is even a degree of ambiguity associated with fetches and valkyries (Donahue; cf. the original portentous function of the banshee, *ban sídh* 'woman of the Otherworld'), in that they appear only near or at the moment of death and, thus, like the seeresses are inextricably linked to man's destiny even if not its active agents (e.g., *Þorsteins draumr Síðu-Hallsson: The Dream of Þorsteinn Síðu-Hallsson*) [11]. Curses function much like prophecies. One of the etiological accounts in the Irish tradition concerns the Ulster capital, Emain Macha (*Noínden Ulad 7 Emuin Machae: The Debility of the Ulstermen and the Twins of Macha*). The story is of a supernatural wife, another aspect of the goddess, whose mortal husband reveals her great running ability in circumstances that oblige her, in an advanced state of pregnancy, to race against the king's horses. She wins but immediately gives birth to twins, whence the toponym Emain Macha or 'Twins of Macha'. She lays a curse on the Ulstermen that in the time of their greatest military need they will be as weak as women in labor [12] (Slotkin). Female generative power is contrasted with male dominance, then impotence, in a situation of competition, then conflict and vengeance. The performative utterance, the curse, is again a verbal means preferred over direct physical action.

In the Icelandic *Laxdæla saga*, Óláfr "the Peacock" appears to have inherited the family's luck and is particularly successful as a stockman and farmer. He even has a marvelous ox called Harri ("Lord") with four horns, one of which is used to clear ice and snow so that the ox and its fellows can graze outdoors during the winter. When after eighteen years the horn breaks off, Óláfr has the animal slaughtered, thus breaking the contract or tie that he perhaps unknowingly had with the forces of nature. He has a troubled dream in which a huge woman appears and says angrily [13]:

"Son minn hefir þú drepa látit ok látit koma ógørvilgan mér til handa, ok fyrir þá sök skaltu eiga at sjá þinn son alblóðgan af mínu tilstilli; skal ek ok þann til velja, er ek veit, at þér er ófalastr" (Ch. 31).

"You have had my son killed and returned to me mutilated; and for that you shall live to see your own son drenched in blood by my doing, and I shall choose the one whom I know you would least want to lose."

As in other instances, a threat to the generative dimension of progeny is followed by its realization through human agents, when Óláfr's son Kjartan is cut down by his foster-brother Bolli. But Bolli is also acting for personal reasons, unrelated to those of the supernatural mother of the ox Harri. Bolli has been goaded into action by his wife Guðrún, who thereby takes vengeance on Kjartan for his failure to return promptly from Norway and marry her as agreed.

With this reference to Guðrún one leaves the supernatural world and enter the human one, but before pursuing the rewarding vein of Icelandic housewives and conflict, some ostensibly more powerful figures such as royalty may be briefly considered. Legendary Irish history had its warrior queens such as Nessa, mother of Conchobar, who were militarily active in seeking vengeance for offenses to kin and kingdom, but such figures partake more of the divine than the human, and they and their names, which occur as matronyms (Conchobar mac Nessa), function principally as means to lend the warrior king an extra cachet (*Compert Conchobuir: The Conception of Conchobar*) [14]. Mes Búachalla, mother of the king Conaire Mór, and of partial Otherworld extraction, is described going before her son's army [15]:

Doarlaic a hinar impe coas cris anós. A mmong dub tathmigthe ima cend. Trelam dub mor le, 7 druith runnem-nig rempi, 7 fian sceith, 7 canti 7 chornaire resna slogaib moraib (*De síl Chonairi Móir: Of the Race of Conaire the Great*, 135).

She let her mantle fall as far as her girdle. From her head her black tresses fell loose. A great black corslet she wore and druids spell-venomous went before her and a

shield-bearer and mockers and hornblowers ahead of the host.

Another legendary wronged princess disguised herself as a leper and exploited the prejudice that lepers also burned with sexual desire to draw her enemies one by one off into the woods and overpower them (*Tochmarc Emire*, 33). Here, sexual bait sets up revenge (O'Leary) [16]. Irish tradition also had a Phaedra story under the title *Fingal Ronáin* (*The Kin-Slaying of Ronán*). A queen whose attention toward a stepson went unanswered accuses him before his father of seducing her. Not only is this slander a verbal means to revenge, and thus another example of women's words promoting hostility through other agents, she also uses the son's ability to improvise a verse couplet to follow her own as proof of their encounter on the hillside that day (Ó Cathasaigh 1989a) [17]. Irish tradition also has a fair number of greatly feared, vindictive female satirists or defamers such as Leborcham in the Ulster cycle (Kelly, 50) [18].

Iceland had no royalty, but queens are far from inactive in the sagas of the Icelanders. To consider an Irish queen first, but from a Norse perspective, in those chapters of *Njáls saga* (154ff.) devoted to the Battle of Clontarf, one of the figures is the Irish queen Kormflaith (Gormflaith), who had divorced King Brján (Brian) and now sides with her son Sigtryggr, turning aggressively back on her people and her former husband (Trindade). As she is promised by her son in marriage in return for the participation of Sigurðr of Orkney, she also illustrates another category: women deployed as the means to others' aggression [19]. While Norwegian figures like Eiríkr's queen, Gunnhildr, who shared her husband's hatred of Egill Skallagrímsson, but sought magical and thus covert means (in the form of a bird? Ch. 59) to his destruction, perhaps because she was of Sámi or Lapp origin, come readily to mind [20], it is interesting to note that even female members of royal families who profess love for an Iclander but fail to hold him in Norway have fatal or near-fatal effects on him, often through a gift that accompanies him back to Norway. The

headdress given Kjartan Ólafsson is one example. Thus the spurned woman, without perhaps even so wishing, sets in motion, through an act that parallels a king's gift to a departing retainer, a sequence of events that will result in fatal acts of vengeance [21].

This combination of superficial good and underlying ill will is also illustrated in the story of Earl Sigurðr of Orkney who figures in *Njáls saga* and in the *Orkneyinga saga*. When he is reluctant to pursue military activity, his mother, with witch-like overtones expressed in the epithet *margkunnig* "learned", makes him a banner with a lifelike raven embroidered on it. Its special power is to cause the death of the man who bears it but bring victory to the leader before whom it is borne. But the mother also says to the reluctant Sigurðr: *Ek mynda þik hafa lengi upp foett í ullaugi mínum, ef ek vissi, at þú myndir einart lifa* ("Had I though you might live for ever, I'd have reared you in my wool basket," *Orkneyinga saga*, 24). When two standard bearers are killed before the Earl, he must eventually take up his banner himself, and fall with it at the Battle of Clontarf, mentioned earlier. Not only do we have such women's work as embroidery associated with men's death [22], a matter to be explored in greater detail below, woman is indirectly involved in destructive acts against men that seem to override the immediate ties of mother and son and respond to some more deeply seated need for female vengeance against males, or at a minimum expose men to the perils of their own viricentric but violent society.

To turn to the Icelandic farmsteads, Rolf Heller has identified more than fifty instances in the Icelandic family sagas, with precedents in the Edda poems (*Guðrúnarhvot*), where women incite men to vengeance [23]. Such women are generally characterized by the sagamen in positive terms. Heller calls the figure the *Hetzerin* and even the Icelanders recognized the type scene, identifying it as a *hvot* or 'whetting', related to the verb *hvetja* 'to whet'. English *edge* and *egg* illustrate the same metaphor, in these texts of men turned into keen weapons by women's words to avenge the loss of family life (cf. the early English tradition; Straus). For the defamatory

component of a *hvot*, as distinct from its subject, the un-avenged earlier deed, Guðrún's incitation of her sons in *Laxdæla* provides a comprehensive example, with its references to class and sex (comparison to a peasant's daughters), lack of initiative and emotional engagement, poor memory and low intelligence. A fair amount of recent scholarship has been devoted to the question of these Norse Elektras (Miller, Clover, Jochens). The everyday domestic settings of the breakfast or dinner table are the stage for a stylized incitement to revenge. The "whetting" may be accompanied by a lament given more or less finished artistic form (cf. the Irish keen), and by personal dishevelment (loosened hair and clothing). Such scenes may also include death tokens such as the bloodied clothes of the deceased or ragged towels which, like the fixed-form lament, serve as mnemonics for the state of mourning and unavenged death (on the semiotic affinities of madness and mourning in Ireland, see Partridge). Miller has suggested that these death insignia are quasi-legal procedural tokens used in a transfer of authority to the men. In these Icelandic scenes of incitement, women recall to men the dishonor done to their families and often through the related dishonoring means of shame, satire, and accusations of unmanliness remind men of their unfulfilled duties in a vendetta society. "*Ok eru kold kvenna ráð*", "cold are the counsels of women," as Flosi says in *Njáls saga* (Ch. 116). One may compare Ailill's response to Medb's suggested solution to a personnel problem: "*A nguín!*" "*Ní chélam as banchomairle*." "Kill them!" "I shall not deny that that is a woman's counsel" (*Táin bó Cúailnge*, l. 162f.) [24]. In a viricentric society, women as inciters to vengeance are active on behalf of societal values (however questionable we may find vendetta) in which they, just as fully as the men, shared. In reductionist fashion we could say that women are here almost doing men's work for them, in the sense that societal norms and values are dramatically called to the attention of the latter. But such activity also points up the inherent weaknesses of a society based on kinship and ridden with feud. Ironically, women can be seen as agents of change, pushing a society to its logical and self-destructive conclusion, and thus clearing the

way for regeneration. (On the economic plane, see Clover's stimulating discussion of the sex ratio in Scandinavia, and, for the link between female sexuality and the arts of music and poetry in Ireland, Radner.)

Even the most powerless women, through their words, can further the cause of strife. In *Njáls saga* the wives Bergþóra and Hallgerðr actively set one act of retribution atop another. The sagamen often leave their public to draw its own conclusions from what seems an objective account of action perceived from the exterior. Essential information, especially on human character, is contextualized and narrativized, not served up in abstract terms. At one point in the escalating contention between the wives, some poor "travelling women" report at one farmstead what they had seen at another, trading news and gossip for hospitality (Ch. 44) [25]. This distancing technique, information through hearsay, has the intended opposite effect of alerting the public familiar with the saga conventions and the many devices of understatement and irony. Further, the women say that they have nothing much to tell, a sure sign of the contrary. But Hallgerðr prompts the women with specific questions and then makes a witty and derogatory comment about Njáll and his sons that becomes the motif of scurrilous verse [26] (Sayers 1990b). Thus, even the travelling women have made their perhaps not totally unwilling contribution to feud. Another similarly nondescript figure is the washerwoman in *Hrafnkels saga* (ll. 790-808), whose scornful words are the goad that sets Hrafnkell on the way to recover his lost chieftainship [27].

To return to the question of death insignia, while it is undoubtedly true that women's lack of access to the courts or *þing*, and general impotence before the law meant that they lacked not only the physical strength but also the legal and social standing to pursue vengeance on their own, and thus could only stimulate others to such action, I would suggest that other evidence here referred to paints a larger but less focused canvas where quintessential women's work, in a basic perversion of social convention and of the image of woman as nurturer, is associated with acts of destruction.

To begin this review of "women's work", whose function has perhaps been less well recognized than that of "women's words", we may consider the Irish evidence, again beginning with the supernatural. One of the ominous figures in Irish tradition is the Washer at the Ford. Doubtless to be associated with the war goddess, she is seen by the fated king or hero on his way to battle. This description is found in *Togail Bruidne Da Choca* (*The Destruction of Da Choca's Hostel*) [28]:

A mbatar ann confacatar mnái ndeiric for ur ind atha, 7 si ag nige a fonnad 7 a fortche 7 a fodbae. Intan no toirned a laimh sis ba derg sruthair na habae di chrú 7 d'fuil. Intan immorro no togbad al-láim oss ur na habae, ní bid bannae isin abainn na tocbad a n-airde, corrachtae cossaib tirmaib tar sruthair na habae. "Is forgrannae 'na ndenann in ben," for Cormac. "Tait nech óaib die athcomarc qidh digni." Teit nech ann iarum. Fochtais di cidh dorinde. Ocus is annside ro chacain si for lethchois 7 lethshuil dóibh annso, co n-epert: "Nigim fodb rig dobeaba ..." (156f.)

As they were there they saw a red woman on the edge of the ford, washing her chariot [better: chariot tires] and its cushions and its harness. When she lowered her hand, the bed of the river became red with gore and with blood. But when she raised her hand over the river's edge, not a drop therein but was lifted on high; so that they went dryfoot over the bed of the river. "Most horrible is what the woman does!" says Cormac. "Let one of you go and ask her what she is doing." Then someone goes and asked her what she did. And then, standing on one foot, and with one eye closed, she chanted to them, saying: "I wash the harness of a king who will perish ..."

This non-verbal sign, a grotesque variant on typical woman's work, foretells the carnage to come. The Washer at the Ford persisted in Irish tradition into more historical works such as *Caithréim Thoirdhealbaigh* (*The Victory of Turlough*; II.124) and may have a descendant in the Scottish folktale tradition called

the Hag of the Red Stream (*Caillech an Sruth Ruaid*; Jackson). Washing laundry is one female task; weaving is another. In *Njáls saga*, the clash at Clontarf, between Orkney and Dublin Norse on the one hand and king Brian *bóruma* of Leinster and other native Irish forces on the other, is preceded by a vision of twelve valkyrie-like women weaving on a loom made of weapons with human entrails as warp and woof [29] (Ch. 157, on the Irish component of these chapters, see Sayers forthcoming; cf. Eöna's banner and wool basket, and in the Irish *Cath Maige Tuired* the equation between spear and weaver's beam; Sayers 1986, Ó Cathasaigh 1989b).

The association of women's work with men's death is also well documented in the family sagas of the Icelanders. Án "the Black", a smith, is one of Kjartan's companions when he is attacked by Bolli. Earlier Án had had a dream in which a horrible woman dragged him from bed, ripped his belly open with a knife and pulled his intestines into a trough (*trog*), replacing them with brushwood (*hrís*) [30]. This earns him the epithet *hrísmaga* 'brushwood belly' (*Laxdæla saga*, Ch. 48). In the defence of Kjartan he suffers an eviscerating wound, and is taken home for dead. But surprisingly he recovers and recounts a second dream in which the woman returned, took out the brushwood and replaced his intestines. This incident has lexical affinities with a dream that Víga-Glúmr has in his saga. He sees two women who sprinkle blood from a trough over the countryside at a site called *Hrísateig* 'Brushwood Meadow', where a fight later takes place (*Víga-Glúms saga*, Ch. 21) [30]. Wooden troughs were used for kneading dough, etc. but may also have been used in catching the blood of slaughtered animals or in preparing dishes where blood was a component. (In Ireland, troughs and sieves were symbolic of women in the legal context; Kelly, 188). In the dream, blood is spread over the ground, not saved. The hollowed-out trough seems to have been seen as homologous with an empty abdominal cavity. The tie to brushwood is less clear; perhaps slaughtered animals, once cleaned, were so stuffed as part of the drying and curing process.

In *Heiðarvígga saga* (*Saga of the Heath-Killings*; Ch. 22), a mother sets the breakfast table with huge uncooked cuts of beef and stones to move her sons to avenge a dead brother [31]. In *Laxdæla* when Bolli returns from killing Kjartan, Guðrún says: "*Misjofn verða morginverkin; ek hefi spunnið tólf álga garn, en þú hefir vegit Kjartan*" (*Laxdæla saga*, Ch. 49) [31]. "Morning tasks are often mixed; I have spun yarn for twelve ells of cloth and you have killed Kjartan." Threads of destiny, (Halldórsson). By the tale's end Guðrún will have outlived her lover and four husbands. When men come to kill Bolli, she is nearby washing clothes in a stream, like an Icelandic echo of the Washer at the Ford (cf. the washerwoman in *Hrafnkels saga*) [31]. Bolli's killer then wipes his sword on Guðrún's sash, saying that the avenger doubtless lies already under it, i.e., Bolli's unborn son. Death, revenge and regeneration are again linked. Here, in an inverted scene, the textile has been manipulated by the man, fouled not washed. These examples could be multiplied: women at the milking pens in *Njála* (Ch. 54) when Gunnarr finally takes action against Otkell; Gísli dreaming of a woman putting a bloodied cap on his head and bathing his head in blood (Ch. 33); the gossip Þórhalla in *Laxdæla* (Ch. 47) who wants a piece of cloth fetched, but then passes on information on Kjartan's travel plans [32]. What we have is a thorough-going redeployment of rigorously gender-differentiated, female activities such as washing laundry, spinning thread or weaving as the ominous imagery of strife, with the housewife or servant on occasion inflated to supernatural proportions, as the simple fabrics of domestic life symbolize men's wounded bodies.

In recognition of the strong representation of such imagery in the two cultures, may we speak of women's fundamental hostility toward men? Perhaps only on a deeper level, and here we leave the relatively clear mechanics of feud, clear since causally linked despite the intriguing, for something more speculative. While numerous Icelandic saga feuds have their basis in disputes over property, with arable land having become a valued and scarce commodity relatively quickly after the Settlement years, and thus originating in men's doings,

many feuds have a female source (Byock). This too is usually tied to land or property to a greater or lesser degree but there is often a sexual dimension as well: unrealized or unsuccessful marriages, divorces leading to disputes over land claims, illicit love affairs. One example that could be called a programmatic statement is found at the beginning of *Njáls saga* when Hrut wonders aloud to his half-brother Hǫskuldr when looking at the young Hallgerðr: "*qrít fǫgr er mæR sjá, ok munu margir þess gjalda; en hitt veit ek eigi, hvaðan þjófsaugu eru komin í ættir várar*"; "the child is beautiful enough, and many will suffer for her beauty; but I cannot imagine how thief's eyes came into our kin" [33] (Ch. 1, ; cf. the druid Cathbad's prophecy of Derdriu, still in her mother's womb: "*Bid Derdriu a hainm ocus biaid olc impe*"; "her name will be Derdriu and concerning her there will be evil", *Longes mac n-Uislenn: The Exile of the sons of Uisliu*, II. 52f.). Later, Hallgerðr will put a slave up to the theft of dairy products (women's work), that will place an increasingly great strain on relations, until finally Gunnarr lies dead and Njáll and his family have been burned in their house. This final event is prepared by a classic whetting scene, Hildigunnr's reception of Flosi after the death of Hǫskuldr, effectively analyzed by Clover. This, then, is the fundamental nexus: men's deeds and women's words, or the laws of men and the extralegal actions of women. Extralegal because of their status in society, but judged illegal by those involved.

This gender dichotomy is also reflected in Norse attitudes toward magic: the *galdr* or sacred incantation was a legitimate male undertaking, but *seiðr* "witchcraft", many of whose specifics we ignore (see, now, Buchholz), was the reserve of women and some few "unmanly" men. Significantly, it was from Freyja, goddess of love and fertility, that Óðinn acquired knowledge of *seiðr*, as a complement to his dark and chthonic side (*Ynglinga saga*, Ch. 7; Halvorsen). Hulð uses magic to lay a curse on an entire dynasty in Snorri's account of the Ynglings (Ch. 14) [34] (Lönnroth 82). Celtic tradition, too, sought protection from "women's charms", a phrasing found both in continental Celtic epigraphy (*bmanom brictom*; Schmidt) and in the Irish texts (*brichtu ban*, *Thesaurus Palaeohibernicus*, II.357).

The widow of Calatín in Cú Chulainn's death tale (*Aided Con Chulainn*) mutilates her six children, then raises them as wizards so that they and their allies may avenge their father [35]. They kill Cú Chulainn by attracting him through the 'art of suction' (*ceird tosuighthi*), eviscerating him with a charmed spear, then cutting off his hand and head. Cú Chulainn's earlier noted encounter with the Mórrígan (breaking her leg when she was in a heifer's form, *inter alia*) and the circumstances of his death find a parallel in Icelandic tradition in the incidents with the old woman Þuríðr who assists her foster-son in overcoming Grettir the Strong (see the table) [36]. These series of episodes might be classified among the "Hero's encounter with an Otherworld female" or her human proxy) (cf. Corthals 22ff.). After Grettir hears her curse he throws a stone and breaks her thigh. She places charms on a log that she magically floats out to the island where the outlawed Grettir had taken refuge. Grettir initially recognizes the evil nature of the log but later in a moment of emotional strain he starts to chop it up for firewood. The axes glances off the log and cuts his knee to the bone. The wound festers and gangrene sets in, eventually reaching his intestines. Thus weakened he is finally overcome by his enemies, who cut off his hand to recover his sword and also take his head (*Grettis saga*, Ch. 78-79).

Before passing to conclusions, I would mention one last role, peripheral to male conflict, that was assigned to women in early Ireland and Iceland, although as a literary device it is near universal. This is woman as witness in the wings and, thus, potential judge of man's martial actions – another instance of man as figure, the female world as ground. We have the coalescence of this situation with another important medieval literary motif, the "watchman device", in the beautiful Emer's stylized description of Cú Chulainn approaching in his war cart (*Tochmarc Emire*). Aggrandizement of self-worth through the address of a (fictitious?) female listener/onlooker also seems to lie behind the skalds' otherwise unmotivated apostrophe of women in verse with a nominal autobiographical content (Frank 1990).

| HERO                                                                                                            | CU CHULAINN                                    | GRETTIR                                                    |
|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------|
| Opposing females                                                                                                | Mórrígan<br>Calatin's widow                    | buríðr                                                     |
| Guises                                                                                                          | Red Woman<br>Carrion crow<br>Heifer, wolf, eel | Hidden in boat                                             |
| Site                                                                                                            | Ford                                           | Seashore                                                   |
| Speech mode                                                                                                     | Prophecy<br>Threat                             | Curse                                                      |
| Hero inflicts injury with non-conventional arms                                                                 | Eye, body, leg<br>Stones                       | Thigh<br>Rock                                              |
| Magical telekinesis                                                                                             | Art of suction attracts hero<br>to battle      | Log floated to island                                      |
| Hero violates convention                                                                                        | Eats taboo dog flesh                           | Chops log he recognizes as<br>charmed                      |
| Initial penalty                                                                                                 | Loss of strength in arm and<br>thigh           | Wounded knee (knee as seat of<br>potency, esp. sexual)     |
| Wounds and mutilations                                                                                          | Evisceration<br>Hand cut off<br>Decapitation   | Gangrenous leg and abdomen<br>Hand cut off<br>Decapitation |
| Trophies/evidence taken                                                                                         | Head and sword                                 | Head (salted) and sword                                    |
| Interaction of the hero and inimical women (Íáin Bó Reganna, Íáin Bó Cúailnge, Íáin Bó Chulainn, Grettis saga). |                                                |                                                            |

To sum up this rather disparate collection of evidence, neither of the two traditions here under consideration displays traces of a myth embodying a fundamental opposition between male and female principles. At most one might speak of a sky-earth opposition. The general conception seems to have been of a female earth, but as Frank has shown in her study of *Þórsdrápa*, the thunder god finds the land he must fertilize to be a hard and stony mistress. It must be recalled that the mythological record may have been primarily shaped by male interests. The vengeance taken indirectly by the Irish goddess of territorial sovereignty against the deficient ruler who had betrayed truth and thereby the land, since injustice brought blight, is but one face of a female divinity and of divine dynamics. The Irish testimony led Arabagian to conclude: "Irish saga's attitude of mingled hostility and awe towards its Goddess heroines reflects more than an Indo-European reaction against the autochthonous religion; it reflects hostility and awe towards women in general. This deep-seated emotion suggests that women really were threatening in Irish society; that they enjoyed a certain power" (121f.; on her chief topic, cattle-raiding and bride-stealing, see, now, Dunn). But without disputing the descriptive portion of this statement, the disparities between the Irish texts and the Irish laws, like the frequency of inciters and dynamic heroines in the family sagas and their absence in the realistic *Sturlunga saga* (*Saga of the Sturlungs*), which on this point accords well with the Norse legal texts, caution us against moving too easily from text to history – or prehistory.

Whether the origins of the Irish goddess are to be sought in the common Indo-European past, in some cultural substratum in Western Europe (e.g., Gimbutas 1989b), or in some special development among the Celts remains unclear. Perhaps archaeology holds more promise in resolving the question than does our linguistic and literary evidence. At any event, we find no comparable figure in the Norse pantheon. As with Arabagian's summary, one may have difficulty in concluding from the otherwise closely reasoned study by Anne Heinrichs of Guðrún, Brynhildr and Sígriðr *inn stórráða* that these women

of vengeful action can accurately be characterized as "prepatriarchal".

The differences and attractions between the sexes are a dynamic in the feud, but it is honor and property that are at stake, not the promise or threat of legitimate or illegitimate union. While legitimate sexual union was a principal means of strengthening the social fabric, women's status as ancillary and peripheral to a male-dominated society meant that their participation in feud had to be from the domestic stage of the kitchen, dining hall and sleeping alcove, their means to pursue vengeance had to be largely verbal, and their stage properties the textiles, foodstuffs and other banal yet essential objects. As in the case of supernatural women, these everyday objects are often given a grotesque new semiotic charge. Focusing on the Icelandic materials alone, in the literary works women are particularly successful in inciting men to violent action, perhaps for the very fact that the criticism and scorn were coming from a clearly inferior party. In discussing the "medieval Icelandic heroine" Jenny Jochens concludes: "She may be the mirage of male fantasies and fears, but it is possible to associate at least some of her attributes with the policies and attributes of churchmen" (47). With the latter is meant more than simple misogyny, and she makes a complex case for the effects of ecclesiastical legislation, inheritance rights, differences between pagan and Christian marriage, and perceptions of the heroic pagan past in raising the status of women and thereby of marriage as a social institution over which the Church sought control.

Yet over and above these considerations, or perhaps under and below, there seems to be a fundamental dichotomy in these societies' conception of the essential orientation of men and women, with men oriented toward the pole of culture, women to the pole of nature. This – and Jochens' notion of "male fantasies and fears" – is hardly news or a striking conclusion. But in societies not too far removed from a subsistence economy, with warfare and natural phenomena a constant threat to societal stability and material existence, women's capacity for extralegal action, actually a limitation to extralegal

action, like the sexual urge itself and man's susceptibility to it, put man's law and social order under continuous siege. Male vulnerability to sexual desire is recast in our tales as aggressive female sexuality or "heroic" heroines. This attraction and repugnance also find expression in Norse views on homosexuality and pejorative comments about "unmanliness" (Sørensen, Gade). The Irish tradition is less forthcoming in this respect.

Some of the questions initially posed must be left open. A strand of misogyny unmarked by Christian ecclesiastical attitudes, other than perhaps the most fundamental one alluded to in these final remarks, seems hard to identify. The nature of the reconciliation of Old Europe and the Eurasian steppe is still largely unknown (but see Gimbutas *et alia* 1989a). We are on surer, if less historical, ground when dealing with our texts as primarily literary constructs, rather than sources of ethnographical data. Here, women's hostility and desire for vengeance and their handling of the symbols of domestic life function as catalysts: women's work and words, followed by men's deeds and often deaths. Thus the feminine principle serves the cause of both feud in society and narrative in art, supplying the dynamics for advance and change, if not always progress.

#### AUTHOR'S NOTE

1. This article was initially drafted for oral presentation at the Annual Conference of the Center for Medieval Studies, University of Toronto, February, 1990, the theme of which was "Power of the Weak?: The Authority and Influence of Medieval Women". As it was a basically speculative and, I would hope, suggestive venture, I have chosen to retain the rather discursive style of the original.

I have yet to see the widely hailed study by R. Howard Bloch, *Medieval Misogyny*, in *Continuity and Change: Political Institutions and Literary Monuments in the Middle Ages, A Symposium*. Ed. Elizabeth Vestergaard. Odense: Odense University Press.

|                                                                                               | DIVINE |       |     | SUPERNATURAL            |                   |                   | HUMAN         |  |                   |
|-----------------------------------------------------------------------------------------------|--------|-------|-----|-------------------------|-------------------|-------------------|---------------|--|-------------------|
|                                                                                               | Maiden | Woman | Hag | Land spirit<br>Giantess | Fetch<br>Valkyrie | Queen<br>Princess | Wife<br>Widow |  | Servant<br>Beggar |
| Overt, kinetic<br>action                                                                      | 3      | 1, 8  |     | 9                       |                   | 14-16             |               |  |                   |
| Verbal action,<br>"Women's words"                                                             |        |       |     |                         |                   |                   |               |  |                   |
| • prophecy                                                                                    |        | 2, 10 | 6   |                         | 11                |                   |               |  |                   |
| • counsel                                                                                     |        |       |     |                         |                   | 24                |               |  |                   |
| • threat                                                                                      | 4      |       |     | 13                      |                   |                   |               |  | 25, 32            |
| • gossip                                                                                      |        |       |     |                         |                   |                   |               |  |                   |
| • lies                                                                                        |        |       |     |                         |                   | 17                |               |  |                   |
| • incitation                                                                                  |        |       |     |                         |                   |                   | 23            |  |                   |
| •• satire, abuse                                                                              |        |       |     |                         |                   |                   | 26            |  | 18, 27            |
| • curse                                                                                       |        |       |     | 12                      |                   |                   |               |  |                   |
| Parallel action                                                                               | 5, 7   |       |     |                         |                   | 21                |               |  |                   |
| "Women's work"                                                                                |        |       | 28  | 30                      | 29                | 22                | 31            |  |                   |
| Covert action                                                                                 |        |       |     | 34                      |                   | 20                | 33, 35        |  | 36                |
| Passive<br>deployment                                                                         |        |       |     |                         |                   | 19                |               |  |                   |
| Women's Words and Work in the Context of Conflict (categories are illustrative, not rigorous) |        |       |     |                         |                   |                   |               |  |                   |

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# SOME OLD NORSE HANG-UPS: RITUAL ASPECTS OF HÁVAMÁL 134

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Many scholars have approached *Hávamál* from varying perspectives over the years in an attempt to clarify certain ambiguities within the poem.<sup>1</sup> Strophe 134 of *Hávamál* is no exception, yet no one has fully explained the strophe from both a philological and contextual standpoint, taking into consideration broader questions of the poem's position in its possible social context. The strophe comes in the section of the poem referred to as *Loddfáfnismál* (strophes 111-137); it is strophe twenty-four of this section. It appears in a somewhat modified form of *galdralag*, a meter commonly associated with charms and magic incantations. The first four lines of the strophe consist of the repeated phrases which open nearly all the strophes of this section:<sup>2</sup>

Ráðomk þér, Loddfáfnir,  
enn þú ráð nemir,  
nióta mundo, ef þú nemr,  
þér muno góð, ef þú getr:

I counsel you, Loddfafnir,  
and let you take these counsels,  
you will enjoy [them], if you take [them],  
[they] will be good for you, if you learn [them]:

The remaining nine lines, however, present an interesting problem. A literal translation is indeed difficult and, rather

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1. For a discussion of earlier scholarship on *Hávamál* see Harris (1982: 68-157, particularly 147-148) which provides a bibliography of works on the poem.

2. All quotations of eddic verse from Kuhn (1983). Translations, unless otherwise noted, are my own.

than elucidating the meaning of the strophe, presents a vexing problem of interpretation.

The first contentual six lines of the strophe are quite straight-forward, and most scholars agree on a similar reading. This part of the strophe:

at három þul  
hlæðu aldregi!  
opt er gott,  
þat er gamlir qveða;  
opt ór scōrpom belg  
scilin orðm koma,

is taken to mean:

at a grey haired sage [*þulr*] should you never laugh!  
often it is good, that which old men say;  
often out of shrivelled skin come wise words,

The word *þul* in the fourth line is worthy of close inspection.

While the question of defining *þulr* is certainly a broad one, a short explanation will suffice here for the purposes of this analysis. John Loewenthal (1919: 236) provides a speculative list of the possible etymologies of the word, linking it to the Latin *tullii*, and possibly the Germanic term *\*þuliz* and the Indo-European term *\*tulis*, meaning a torrent of words. De Vries (1977: 626) rejects this etymology as arbitrary, maintaining that all of the current etymologies are hypothetical. He includes four other possibilities: from the Russian *tolkŭ* for teaching or interpretation; from the Latvian *tulā*, *tulis* meaning anyone who is indispensable; related to *\*þus* meaning rage or roar; or from the Indo-European *\*tel* meaning enclosure. However, Mühlenbach (1929: 280), in his etymological dictionary of Latvian, follows *tūla* with a "?" and translates *tūlis* as "ein Stätisches, der nicht gerne von der Stätte geht." Concerning the possible Latin form, *tulii*, Ernout and Meillet (1959: 706) suggest "alii dixerunt esse silanos, alii riuos, alii uehementes proiectiones sanguinis arcuatim fluentis..." Kuhn

(1983: 244) tentatively defines *pulr* as "kultredner," presumably one who performs and conveys the oral traditions of a cult. The question was taken up in great detail by Walter Heinrich Vogt (1927: 262) who considered the context of the attestations of the word *pulr*, as well as its correlates *pula* and *pylja*, and concluded that the *pulr* was not only a "Kultredner" but also an initiator, teacher, prophet and religious poet: "Sein Tun umfasst das ganze Volksleben, so weit es religiös in Handlung und Leiden tritt: den empfangenden und den wirkenden Verkehr mit den Göttern, das Recht, die Lehre, die Sitte und die göttlich geleitete Geschichte. Seine Kraft liegt konzentriert im Seher- und Magiewesen." This view was also held by Edgar Polomé (1975: 661) and Erik Moltke (1932-1933), who considered the *pulr* as a link between the world of men and the world of the gods. Polomé (1975: 661-662) notes that "*pulr* has not been satisfactorily explained because it has not been placed in the proper context. In a set of Hittite texts the verb *talliia*-occurs, which applies to humans propitiating the gods... this would provide a quite attractive etymological connection for ON *pulr*. The IE root would be *\*tel-*, of which the reduced grade would be reflected by Gmc. *\*pul-...*" Axel Olrik (1909: 10) relates the practice of kings sitting on mounds to the *pulr*. He rejects the suggestion that the *pulr* was equivalent to the *skald*, saying "Vi lader thul'en blive ved sin høj, i hans thular stol, med sin religiøse indvielse, magiske baggrund, moralske belæring og borgerlige høvdinge dømme" (We let the *pulr* stay by his mound, in his *pular* seat, with his religious consecration, magical background, moral learning and civil chieftain rule). The *pulr* thus appears as a cult head, intimately involved in both the secular and religious life of the community.

The final three lines of the verse pose a somewhat complex translational problem, allowing for several distinct interpretations. These lines of the strophe were the subject of a heated debate between Finnur Jónsson (1897) and Eiríkr Magnússon (1887 and 1898) at the end of the nineteenth century. The lines read:

þeim er hangir með hám

oc scollir með scrám  
oc váfir með vilmqgom.

The nouns *hám*, *scrám* and *vilmqgom* along with the verbs *scollir* and *váfir* are subject to multivariant interpretation, thus forming the basis for Jónsson's and Magnússon's debate.

*Loddfáfnismál* itself has been a topic of scholarly debate, with Lindquist (1956) suggesting that the section is a later interpolation into a separate poem. This section, set off by rubrics in the *Codex regius* manuscript, relates the instruction of *Loddfáfnir*, presumably a young initiate, in the manner of requisite behavior, primarily respect for others, by an older man in the hall of the high one – "háva hǫllo at, háva hǫllo í" (at the hall of the high one, in the hall of the high one)(*Hávamál* 111). This instructor, often considered to be Odin, is also the poetic narrator and undoubtedly a sage – a *pulr* if you will. The line "Mál er at þylia, þular stóli á" (It is time to recite, at the *pulr*'s chair) supports this assignation of identity (*Hávamál* 111). The instruction of *Loddfáfnir* is possibly a form of ritual initiation, accounting for the location of the instruction and the partial *galdralag* meter. Beyond the allusions to *pulir*, *Loddfáfnismál* also contains specific references to witches and charms, "fiolkunnigri kono..." (woman skilled in magic) (*Hávamál* 113), "oc nem lícnargaldr..." (and learned healing spells) (*Hávamál* 120), "síðr þic um heilli halir..." (lest men would not enchant you) (*Hávamál* 129), which further underscore not only the ritual aspects of this section of *Hávamál* as initiation but also the importance of ritual and magic in the society. Thus it is plausible that the *pulr* narrator is referring to a ritual involving someone like himself in strophe 134. This brings us back to the interpretation of the final three lines of the strophe and the words *hám*, *scrám*, *vilmqgom*, *scollir*, and *váfir*.

The word *hám* is a dative plural form of the feminine noun *há*. De Vries (1977: 199) defines the word as "haut, fell... (\* < germ. \**hawō*). Das wort ist mit *húð* verwandt und gehört zur idg. wzl \*(s)keu 'bedecken'..." Blöndahl (1920-1924: 283) defines it as "Skind... b. om Mennesker i enkelte Udtr.: með

heilli há, helskindet" (Hide... in certain expressions concerning people means: *með heilli há*, unhurt). Kuhn (1983: 85) defines the word as "fell, haut." Cleasby (1957: 241-242) mentions "the hide of a horse or cattle, but *gæra* of a sheep." Jónsson (1931; reprinted 1966: 314) defines it as "skind" (skin, hide). The line "*þeim er hangir með há*m" translates as "from him who hangs among the skins." However, while most scholars accept this literal translation, Jónsson (1924: 131-132) believes in an implied meaning "som hænger blandt andre skind bet. blot: som færdes blandt andre lignende mænd med rynket hud" (who hangs among other skins means simply: who travels about with other similar men with wrinkled skin). He continues this line of reasoning in his interpretation of the following lines.<sup>3</sup>

The word *scrám* and its alliterative pair *scollir* pose a slightly more difficult translational problem. The word *scrám* is the dative plural form of the feminine noun *scrá*. *Scollir* comes from the verb *scolla*. Most scholars agree that this word means "to dangle." However, a secondary definition is "to cheat" or "to look down on." De Vries (1977: 498) gives "sich hängend hin und her bewegen; betrügen." Blöndahl (1920-1924: 735) suggests "dingle, hænge; skuffe, vise sig upaalidelig over for en" (dangle, hang; disappoint, be impolite to someone else). Kuhn (1983: 177) defines it as "baumeln (Háv. 134); schweben (Vkv. 37)." Cleasby (1957: 554) mentions "to hang over, dangle; metaphorically: to sulk away, keep aloof." Jónsson (1931; reprinted 1966: 511) defines it as "holde sig i svævende afstand; hænge og dingle" (keep oneself hovering apart; hang and dangle). The definition of *scolla* is thus dependent on the definition of *scrá*.

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3. An interesting aspect of the line is the use of the pronoun *þeim*. Here *þeim* is a demonstrative, third person singular masculine pronoun in the dative case. The pronoun is in the dative case because it assumes the position of *scorpom belg* from two lines before, giving the line the implied form "opt ór þeim er hangir með há m scilin orð koma." The words *scorpom belg*, in turn, are a description of the skin of the *három þul*. The following two lines also depend on this implied substitution for their syntactical integrity.

Concerning *scrá*, De Vries (1977: 500-501) says "trockenes fell; urkunde, gesetzbuch... vgl. nschw. dial. *skrâe*, eingeschrumpfte person... vgl. *skrælingr* und *skröggr*." Blöndahl (1920-1924: 738) gives "tört, sammenskrumpet Skind" (dry, shrivelled skin). Kuhn (1983: 178) concurs "haut, stück leder." Cleasby (1957: 556) also agrees with this definition. Jónsson (1924: 131) equates the word *scrá* with the word *há*. The preferred definition of the word suggests a piece of leather or skin which is either being dried, or is dried. However, there also seems to be some implication, especially in the later development of the word, that the word *scrá* can also be used to describe a person. This definition of the word would require Cleasby's metaphoric interpretation of the word *scolla*. Jónsson supports an interpretation of this nature. He bases this interpretation on the metaphoric use of the words *scqrþom belg* in line eight of the strophe. Since *scqrþom belg* in his reading alludes to the condition of a person's skin, so too must *hám* and *scrám*. Magnússon, on the other hand, interprets both *hám* and *scrám* literally, *scrám* being thin parchment and *hám* a thicker hide. Magnússon (1887: 16) translates these two lines as:

hangs among hides (of large beasts)  
and dangles among skins (of sheep, used for scrolls...)

Jónsson (1924: 31) interprets the lines as:

som hænger blandt andre skind bet. blot: som færdes blandt  
andre lignende mænd med rynket hud, der her  
sammenlignes med skind (bælge), der er hængt op i  
ildhuset for at blive påvirket af røg...

who hangs among other skins means simply: who travels  
about with other similar men with wrinkled skin, which  
are here compared to hides (skins) which are hung up in  
the smoke house to be treated with smoke...

The final line of the strophe provoked the greatest fury in the aforementioned debate. The word *vilmqgom* appears to be

the dative plural form of the masculine noun, *vilmagi*. While De Vries offers no definition for this word, Blöndahl (1920-1924: 944) mentions, "Kallun, ophængt til Indtörring i et Køkken" (abomasum, hung up to dry in a kitchen). Kuhn (1983: 227) defines it "labmagen, ?" Hummelstedt (1949: 25-27) supports this definition, "Det är herved sannolikast, att ordet *vilmógom* häntyder på en i taket dinglande löpmage" (It is here most likely, that the word *vilmógom* refers to an abomasum dangling from the roof). Magnússon is a strong proponent of this definition. He explains the word as follows:

*Vilmógom* = *vilmögom* is also a correct dat. pl. of *vilmagi*, literally: intestinal maw; *víl* being a common word for intestines, bowels (see Cleasby, s.v.), *magi* = maw paunch.

When a suckling calf is slaughtered in Iceland... the fourth stomach, the rennet, is preserved, and having been cleaned and washed outside, is tied up with a string, and hung up in the kitchen, to dry and smoke... Now, while the rennet hangs up in the kitchen, it is called *kálfs magi*... (Magnússon 1887: 15).

The word *vilmagi*, however, is not attested in any of the other literature.

On the other side of the philological spectrum, Jónsson (1924: 131-132) suggests that the manuscript should be read *vilmqgom*. Thus, the word would be the dative plural form of the noun *vilmqgr*. Cleasby (1957: 717) defines this word as "a son of toil, a bondsman." Kuhn (1983: 227) gives "bursche, der schwere (schmutzige) arbeit tut ?" Gering (1915: 200) defines it as "mensch von niederer herkunft, leibeigener, knecht." Jónsson (1931; reprinted 1966: 625) defines the word as "arbejdende person, en som har hårdt arbejde, træl... at antage her et vilmagi er ganske grundløst" (working person, one who has difficult work, thrall... to suggest here a *vilmagi* is without basis). Jónsson's argument is supported by *For Skírnis* 35:

þar þér vílmegir

á viðar rótom  
geita hland gefi!

there, to you, the thralls  
by the roots of the tree  
may give goats' urine!

Here the word *vilmegir* has the definite sense of workmen or thralls. In response to Magnússon's interpretation, Jónsson (1897: 197) says:

Eiríkr Magnússons fortvivlede vilmagi i Háv. 134 burde ikke have fundet tilslutning... et vilmagi har aldrig eksisteret, og har heller ikke på grund af dets irrationelle dannelse (vil er netop ikke nogen magi) kunnet det; hele udtrykket vil da også være ubegribelig smagløst.

Eiríkr Magnússon's dubious *vilmagi* in *Háv.* 134 should never have found endorsement... a *vilmagi* has never existed, and, because of its irrational formation, never could have (*vil* is just not a *magi*); the entire expression would also be inconceivably tasteless.

Magnússon (1898: 319) responds to Jónsson's attack:

Of course *vil* is not a stomach; I have never maintained it was... the Dr.'s insinuation that I have so interpreted *vil* is gratuitous; it is a term that, in the dairy language, betokens the coagulated substance in the fourth stomach of a sucking calf, that also goes by the name *hleypir*...

Magnússon supports his definition of *vilmagi* as a rennet by citing contemporary evidence for the use of the word *vil* in the same manner as the word *hleypir* (1898: 320). Also, one should note that the previous lines make specific reference to animal skins and therefore, to maintain consistency of imagery, it is

preferable to accept Magnússon's definition, regardless of the possible connotations of the words *há* and *scrá*.

Thus there seems to be a stand off. Jónsson (1931; reprinted 1966: 625) bases his argument on the assumption that the manuscript is defective, and the correct word is *vílmqgom*. He defines the word *váfa* as "bevæge sig frem og tilbage, især om noget der hænger, dingle; færdes flakkende, flakker omkring" (move back and forth, especially concerning something that hangs or dangles; wander, rove about). He uses this second definition in his interpretation of the line, "Men her bet. váfir sikkert ikke hænger, men færdes, flakker omkring" (But here *váfir* definitely does not mean hang, but wander, rove about) (Jónsson 1924: 131). On the other hand, *váfa* is defined by De Vries (1977: 638) as "schwanken, wanken." Blöndahl (1920-1924: 956) gives "bevæges hid og did, svæve frem og tilbage" (move here and there, sway back and forth). Kuhn (1983: 212) suggests "schwanken, baumeln." Cleasby (1957: 683) defines it as "to swing, vibrate to and fro." Gering (1915: 180) provides "sich schwankend hin und her bewegen." Jónsson's use of a secondary metaphoric interpretation is unnecessary, given the content of the previous two lines. By introducing the wandering man, he ruins the continuity of the image presented in the previous lines of skins hanging and swinging about in a drying area, an image which is preserved if the first definition he proposes is used.

Thus there are two distinct interpretations of the final three lines of the strophe. Jónsson's (1924: 131) lines read:

der hænger blandt andre bælge (skind),  
og (som) dingler blandt skind,  
og (som) flakker omkring med elendige mænd (fattige).

who hangs among other skins (hides),  
and (who) dangles among hides,  
and (who) wanders about with miserable men (poor men).

Jónsson insists that *galdralag* is not being used here. Instead, this part of the strophe is a case of an overzealous collector

presenting all the variants of the last line, connecting them together with the conjunction *ok*. Thus, the last three lines are essentially three different ways of saying the same thing, namely that intelligent words are often spoken by old or indigent men. He supports his assertion that *váfir* means to wander by using that definition as an explanation of the Odinic name *Váfuðr*, the wanderer (Jónsson 1924: 131). However, this name could just as easily mean the hanging one, being a reference to strophe 138 of *Hávamál*, "veit ec at ec hecc."<sup>4</sup>

Magnússon's (1887: 16) reading of the strophe pays closer attention to the manuscript, and does not rely on any emendations:

that hangs among hides,  
and swings among skins,  
and rocks among rennets.

However, in the final interpretation, Magnússon falls victim to the same interpretive vice that Jónsson does:

"yea", adds the epigonic wag, "even though they may happen to look, in the words of another proverb, like shrivelled bags, begrimed and sooty, having spent their life among associations which for humbleness might be paralleled with those of a real *belgr*, for wisdom can ally itself with the soot-churl just as well as with the exalted favourite of fortune" (Magnússon 1887: 16-17).

This secondary interpretation is completely unnecessary. The strophe may be taken quite literally.

A question arises, however, as to what a man is doing hanging among hides, swinging among skins and wafting about with tripe. Nevertheless, a reasonable explanation may exist for this seemingly odd behavior. Each of the last three lines of

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4. *Váfuðr* is also a poetic noun for "wind." (De Vries 1977: 238)

the strophe represents a different type of tanning or smoking process. The *há* is the thickest of all, and must hang for the longest period of time, during tanning. The *scrá* is a thinner more pliable skin, often used for manuscripts and presumably hangs for a shorter period of time. Finally, the *vilmagi* hangs for the least amount of time, during the curing period. The man, the *pulr*, hanging with these various animal parts, presumably hangs for an even shorter time. Thus one has a catalogue of the uses of a smoke-house/tanning enclosure: tanning hides, drying parchment, curing meat, and hanging a *pulr*. Although having a hoary sage dangling from the roof of a smoke house at first seems ludicrous, the practice may have its roots in ritual.

Olrik, as mentioned above, pointed out the practice of the *pulir* raising themselves onto mounds or platforms, much like the *seiðkonur* (Strömbäck 1935: 139), as a means for initiating ritual performances: "det ophøjede sted er det mere hellige og højtidelige" (the elevated place is holier and more ceremonial) (Olrik 1909: 5). In his interpretation of the Snoldelev rune stone, Olrik asserts that "at være 'pulR á Salhaugum' skal forstås ganske bogstavelig som 'læremester på Salhöjene': han [pulr] har sin þular-stóll stáende på en af højene og bor selv i salen" (to be *pulR á Salhaugum* should be understood literally as 'teacher on the Sal mounds': he has his *þular* chair standing on one of the mounds and lives in the hall), thus arguing that a literal translation of the line is the most appropriate (1909: 9). The *pulr* has a high seat, presumably used during ritual, on the top of a mound and lives in a nearby hall. The performance of *Loddfáfnismál* itself implies an enclosure (see above), suggesting that the *pulr* at least occasionally performed ritual inside his hall. During initiation or other such wisdom ritual he ascends the seat or platform, either in his hall or on the mound (or both!), as an integral part of the ritual. Jost Trier identified the importance of enclosure to both political and religious power, including its use during dance, music drama and poetry performance (1942: 264). Enclosure, such as the *pulr's* hall where his platform stands, helps establish a depiction of worldly boundaries, the inside of the enclosure

being elevated to the status of the holy (Trier 1942: 232). Trier comments "In geschlossene Hegung, als Zaun, trat man zusammen, wenn es galt, den Göttern Gebet und Opfer zu spenden, ein Orakel zu befragen, den Kultsprecher zu hören" (1942: 233). While Trier's enclosure is apparently open-air, the enclosed hall of the *pulr* seems to have fulfilled a similar function. Enclosed sacrifice and an elevated or hanging *pulr* during wisdom ritual taken in light of these arguments begins to seem plausible.

While there is no clear archaeological evidence that a wisdom ritual involving hanging and the heat of a smoke house existed in Old Norse society, rituals involving wisdom and numinous knowledge were undoubtedly important in early Scandinavia. Adam of Bremen mentions the existence of an entire ghetto of sooth-sayers and sages in Courland (present day Latvia):

all the houses are full of pagan soothsayers, diviners and necromancers, who are even arrayed in a monastic habit. Oracular responses are sought there from all parts of the world (1959:197).

He also includes a description which suggests that men and animals hung together in an enclosure during ritual in Uppsala:

The sacrifice is of this nature: of every living thing that is male they offer nine heads, with the blood of which it is customary to placate gods of this sort. Feasts and sacrifices of this kind are solemnized for nine days. On each day they offer a man along with other living beings in such a number that in the course of nine days they will have made offerings of seventy-two creatures. The bodies they hang in the sacred grove that adjoins the temple. Now this grove is so sacred that each and every tree in it is believed divine because of the death or putrefaction of the victims. Even dogs and horses hang their with men (1959: 208).

Ibn Rustah provides a further account, concerning the Rus:

There are *atibba* (medicine men) who wield great power; they act as if they own everything. They tell people exactly what offerings of women, men and cattle to make... The *atibba* then takes the offering, human or animal, and hangs it from a pole till all life has expired... (Brøndtsted 1980: 268).

These accounts suggest that the men who hang among the animals are dead. However, if the hanging men are *pulir*, they may be engaged in a type of ecstatic voyage, and therefore only appear dead.

Although Adam of Bremen's account is at best second-hand, it supports the possible existence of such a ritual. Turville-Petre (1964; reprinted 1975: 244-246 and 251-262) considers both Adam of Bremen's description of the temple at Uppsala and the role of sacrifice in early Scandinavia. Particularly, he notes the sacrifice of humans to Odin by hanging, citing archaeological finds in part as evidence (Turville-Petre 1964; reprinted 1975: 253-254). While human sacrifice was quite probably an aspect of early Scandinavian religion, as suggested by R.L.M. Derolez (1963: 226-227) and De Vries (1956: 420-422), a mythic archetype for non-fatal ritual hanging also exists. *Hávamál* 138-139 report that Odin hangs in the tree for nine nights, a remarkable similarity to the ritual described by Adam of Bremen. After hanging in the tree, Odin falls back to earth; the result of the hanging is an increase in his numinous knowledge rather than death. Not all the hanged are necessarily human sacrifices; like Odin, they could be *pulir* engaged in ritual designed to increase their knowledge. De Vries (1956: 499, 501) suggests that such ritual undoubtedly involved an element of apparent death:

Wir hatten schon Gelegenheit, einen eigentümlichen Initiationsbrauch zu erwähnen... Erst soll der Initiandus von der Welt, in der er bisher gelebt hatte, losgelöst werden; dann muß er in die neue Gemeinschaft

übergeführt werden. Hierfür ist die Form oft ein Scheintod, ein Eingang in die Welt der Toten und eine darauf folgende Wiedergeburt... Wir fangen mit einigen Beispielen einer Opferhandlung an, die einen Scheintod zur Voraussetzung haben, und deshalb vielleicht in gleichem Sinne zu deuten sind. Das geld an erster Stelle von Odins Selbstopfer (Háv. 138-141); der Gótt hängt neun Tage am windigen Baum, sich selbst zum Opfer geweiht von einem Speer verwundet; weder Speise noch Trank hat man ihm dargereicht. Als er hinabblickte, fand er die Runen, die er sodann laut schreiend aufhob... Man darf also annehmen, daß es einmal einen Ritus gegeben hat, in dem ein Scheintod den Durchgang zum neuen Leben bildete.

Rolf Pipping (1928: 4) also finds evidence for such an initiation, suggesting that the *pulr* in *Hávamál* 134 is not dead:

Denna skenbart så besynnerliga strof blir alldeles klar och får god mening, om vi tänka oss den gamle thulen såsom en trollkarl, vilken i rituellt syfte upphänges (i det heliga trädet) på ett sådant sätt, att hann icke avlivas, och där dinglar blandt de döda kropparna av genom verklig hängning avlivade människor och djur.

This apparently peculiar verse becomes somewhat clearer and develops a better meaning if we think of the old *pulr* as a wizard who, during ritual, is hung (in the sacred tree) in such a way that he is not killed, and there dangles among the dead bodies of men and animals killed by actual hanging.

Both De Vries (1956: 501) and R. Pipping (1928: 8-9) refer to the sacrifice of King Vikar related in Saxo's *Gesta Danorum* as further evidence for such a ritual.

Other cultures may provide clues to the form of early Scandinavian ritual. The closest shamanistic culture, that of the Lapps, exhibits some affinities with early Scandinavian

ritual.<sup>5</sup> Strömbäck (1935: 191-200) points out the similarities between *seiðr* and Lapp shamanism, a view first proposed by Johan Fritzner (1877) and later endorsed by Ivar Lindqvist (1923) and Hugo Pipping (1925 and 1926). Also, Åke Ohlmarks (1939: 179) has identified the similarities between *seiðr* and sub-arctic shamanism, including ascent as a primary element in ritual. *Seið*, is probably part of the same complex as the functions of the *pulr*. While the absolute influence of Lapp shamanism on early Scandinavian ritual practice is not measurable, Peter Buchholz (1971: 9) argues that a minority culture can influence the practices of a bordering majority culture.

In other cultures, there are documented accounts of climbing trees as part of shamanic ritual. Furthermore, there is a close relationship between the slaughter and preparation of sacrificial animals and these rituals. In Balagansk, a Buryat initiation ceremony revolves around two concepts: the slaughter and preparation of animals and a ritual ascent of a tree:

Headed by the father shaman leading the candidate... the whole group... sets out in a procession for the place where the row of birches has been set up. At a certain point, near a birch, the procession halts; a he-goat is sacrificed and the candidate, stripped to the waist, is anointed with blood on the head, eyes and ears, while the other shamans drum... Then nine or more animals are sacrificed, and while the meat is being prepared, the ritual ascent into the sky takes place. The "father shaman" climbs a birch and makes nine notches at the top of it... The candidate ascends in his turn, followed by the other shamans. As they climb, they all fall into ecstasy. Among the Buryat of Balagansk the candidate, seated on a felt carpet, is carried nine times around the

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5. It is difficult to speculate on the form and function of early Scandinavian ritual. As yet unpublished works by Edgar Polomé and François Xavier-Dillman will undoubtedly provide clear and helpful insight into these questions.

birches; he climbs each of them and makes nine notches at their summits. While at the top of each birch he shamanizes... By this time the meat is ready and, after offerings are made to the gods (by throwing pieces into the fire and into the air), the banquet begins. The shaman and his "sons" then withdraw into the yurt... The bones of the animals are wrapped in straw and hung on the nine birches (Eliade 1964: 119-120).

Here, a ritual performer shamanizes among animal parts in a tree. The preparation of the animals without doubt includes the removal of skins for tanning and the hanging of the carcass to drain the blood, calling to mind the image of a man, engaged in an ecstatic voyage, seemingly lifeless, high above the ground among the skins and innards of dead animals. Eliade (1964: 123-124) provides another parallel in the initiation of the Araucanian shamaness in South America:

The following day, the celebration is at its height. A crowd of guests arrives. The old *machi* form a circle, drumming and dancing one after the other. Finally they and the candidate go to the tree-ladder and begin the ascent, following one another... The ceremony is terminated by the sacrifice of a sheep... An animal is killed and its heart hung from one of the branches of the cannelo... After other rites, the young initiate "climbs the rewe, dancing and drumming. The older women follow her, and steady themselves on the steps; her two sponsors stand on either side of her on the platform. They strip her of the necklace of greenery and the blood-stained fleece... and hang them on the branches of the shrubs. Time alone may destroy them for they are sacred. Then the college of sorceresses comes down again, their new colleague last, but moving backwards and keeping time. As soon as her feet touch the ground she is greeted by an immense uproar; it is triumph, frenzy, a real scuffle, for everyone wants to see her close,

to touch her hands, kiss her." The feast follows, with all those who have attended taking part.

Although a great celebration occurs after the initiate completes her descent, it is to welcome the new shamaness and celebrate her new status. The ritual itself "centers upon the ritual climbing of a tree trunk stripped of bark, called *rewē*" (Eliade 1964: 123).

Artistic representations from various shamanic cultures support the idea that ritual performers, while undertaking an ecstatic journey, are surrounded by animal skins and parts. The elderly Evenk shaman Vasiliy Sharemiktal's drawing of a Nyurumal clan shamanic ritual shows skins of animals hanging on a shamanic idol as well as the skin of a slaughtered reindeer hanging in a tree as a sacrifice to the gods (Brodzky et. al. 1977: 149). The Evenk shaman, during ritual, erects a tree inside his tent, while on other poles, the skins of sacrificed animals are hung. In the center of the tent, a small fire is lit and often the shaman will engage in "excessive smoking," during the building of this ritual tent (Ansimov 1972: 86, 93). Among the Arikara and the Algonkian, a tree is used for both ascension during shamanic ritual and for animal sacrifice (Brodzky et. al. 1977: 108).

Also linked to the hanging *pulr* is the intense heat of the smoke house. Other cultures include accounts of wisdom ritual and the use of intense heat. Eliade (1964: 412) elucidates the role of the *tapas* rite, "This excess of heat was obtained either by meditating close to a fire... or by holding the breath," and he mentions that such a rite is "...creative on both the cosmic and spiritual plane... it results in a kind of magical power." He also mentions "...that inner-heat (the result of *tapas*) forms an integral part of the technique of primitive magic" (Eliade 1964: 412). Native American and Eskimo rituals also include the use of intense heat as a means for gaining wisdom and contacting the spirit world. One of the important rituals in Eskimo society is the *maqiuq* or sweat bath. The important hunting feast often referred to as the Bladder Festival involves both animal parts and a ritual steam bath (Maressa 1986: 182-186). Seal bladders

are saved and stored in the *kashim* which also serves as a lodge during the hunting season for traveling hunters. On the day of the festival, the bladders are inflated, brought out to the ice, where they are deflated and submerged, after which all the men return to the *kashim* for the steam bath and a cleansing with urine. Edward Nelson (1899: 379) mentions at the end of the steam bath "They finish... the festival with trials of strength such as swinging themselves up to the smokehole by means of ropes." John Maressa, in his study of the Eskimo sweatbath rituals (1986: 231), stresses the link between hunter and animals, accounting for the presence of animal parts in the Eskimo rituals. Such a connection could also be made for pre-Christian Scandinavian society, especially in light of the relative geographic proximity of these groups.

A *pulr* undergoing either a ritual hanging or a trial by heat or both occur several times in the Eddic corpus aside from the strophe in question. The most prominent of these is *Hávamál* 138 and 139. In these famous strophes, Odin appears hanging in the world tree, undergoing a ritual mutilation as a means for gaining wisdom. Jere Fleck suggests that Odin is in fact hanging upside down, supporting this assertion with the method of animal slaughter in Old Norse society:

Such a sacrifice... can... best be performed with the victim hanging in the inverted position. This is still a standard slaughter practice today... we must consider this Germanic slaughter tradition as a contributing factor in the complex of ritual inversion (Fleck 1971: 128).

It is only a step further to link the draining of blood from a carcass by inverted hanging to the preparation of hides and meat in a smoke-house, or the hanging of animals in trees associated with ritual. The use of intense heat in wisdom ritual appears in *Grímnismál* 1 and 2. In that instance, Odin is placed between two fires for eight nights, which results in his recitation of the verses of the poem – a catalogue of numinous knowledge. This closely parallels the *tapas* rites described by Eliade mentioned above. The final hanging occurs in *Hávamál*

157, further underscoring the practice of men hanging in trees. If the tree alluded to in *Hávamál* 157 is part of a ritual similar to the one described by Adam of Bremen and Ibn Rustah, presumably the man would be hanging among animals, their skins and innards.

The transmission of the Eddic poems, particularly those dealing with heathen ritual, through the Christian period relies on the proverbial nature of much of the verse. Much of the "wisdom" of *Hávamál* and, in particular, *Loddfáfnismál*, appear couched in the vocabulary of the proverb. Strophe 134 relies on a repetition of the adverb *opt*, a standard operator in the lexicon of the Old Norse proverb.<sup>6</sup> Thus, a Christian audience could receive the strophe without necessarily being aware of the implications of the possible ritual origin of the lines.

Strophe 134 of *Hávamál* can be interpreted as an allusion to a type of wisdom ritual in which a ritual ascent and hanging and probably extreme heat are endured. The strophe should be translated literally and according to the manuscript. Although Jónsson's and Magnússon's final interpretations of the verse could be justified if there were no instances of hanging *pulir* in Old Norse literature, the existence of such a figure four verses later countermands their metaphoric interpretations. The allusion to various forms of animal flesh hanging up suggests either the ritual grove alluded to by Adam of Bremen and Ibn Rustah, or a smoke house. The fact that the strophe is in *galdralag* implies that it is related to magic, as does the apparent role of *Loddfáfnismál* as an initiatory poem. Even if *Loddfáfnismál* is an interpolation, it is interpolated with a reason, mirroring the ritual ascent of *Hávamál* 138-139. Whatever the final interpretation of *Loddfáfnismál* and *Hávamál* may be, the aforementioned ritual interpretation is a possible conclusion which fits the context and content of the entire poem with an eye to the possible importance of ritual in pre-Christian Scandinavian society.

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6. Finnur Jónsson (1912) and Bjarni Vilhjálmsson (1966) provide numerous examples of Old Norse and Icelandic proverbs in which the word *opt* is an important operative.

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## CRIME, UNEMPLOYMENT AND POVERTY

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The "economic" concept of crime as rational behavior clearly ignores genetic and extreme psychological and psychopathic factors. Furthermore, the economic perception of crime as rational behavior based upon "opportunity costs" should not be narrowed down to a simplistic equation where crime results primarily from poverty. Although the world population explosion has undoubtedly created poverty and encouraged crime in countries where poverty and crime were previously rare, there are still many impoverished societies in which crime was uncommon. Poverty also cannot explain the motivation of "white collar" criminals and drug barons. Nevertheless, "white collar" criminals and mobsters fit the economic theory of crime and - genetic and extreme psychological factors aside - rational or semi-rational "opportunity cost" decisions seem to play a role in promoting crime and in strengthening or undermining law enforcement opportunities in present-day American society. Bearing in mind these reservations, author Fadaei-Tehrani's article provides a useful contribution to the sociology of criminal behavior.

Crime is a major social concern which has received increasing attention in recent years. The focus of this paper will be on an economic approach to understanding criminal behavior and the design of effective policies as a helpful tool for dealing with the problem of criminal activity. In terms of the economic theory of opportunity costs, crime is rational behavior; a choice that is made by a person or persons in deciding how best to spend their time. In making the choice, individuals consider the benefits and costs of using their time in different ways; working legally, working illegally, or not working at all.

The tremendous and highly complex industrial development which went on with ever-accelerating rapidity during the latter half of the nineteenth century brought us face to face at the beginning of the twentieth century with very serious social problems. The old laws and customs seemed no longer sufficient to deal with these developments. Generally, the infiltra-

tion of the social sciences into the law and the administration of criminal justice began to take effect during the first three decades of the twentieth century. Law journals, journals of crime and delinquency, various crime surveys, and investigative studies of the administrative branches of the law began to adopt the languages and models of the disciplines of economics, sociology, psychology, and anthropology.<sup>1</sup> Some of the concerns of sociologist, psychologist, political scientists, and other social scientists who study criminal behavior can be incorporated within the economic mode. This is because economists argue that the gains and costs of criminal behavior include psychic elements. These psychic costs and benefits become a catchall for all kinds of psychological, sociological, and political phenomena. For example, one possible gain to a juvenile from the crime of vandalism is peer approval. Social scientists have studied the impact of modernization on contemporary society. Criminologists loosely refer to the "modernization theory" of criminality but a theoretical approach has never been fully expounded in the literature. The relationship between modernization and crime is studied in terms of the level and form of economic development although the socialization of the means of production have different impacts on crime. Modernization is analyzed primarily in terms of two of its most important effects; urbanization and industrialization, and other variables such as changes in family life, educational level, and the growth of the working class.

Lombroso chose to focus on the characteristics of the individual offender. Quetelet's central task of criminology was to explain the existence and distribution of crime in society and his natural tendency was to see social factors as of overwhelming performance. Quetelet and a French scholar named Guerry analyzed the effects of age, sex, race, education, profession, economic and meteorological conditions on crime. Tarde and Durkheim asserted that it was the profound changes in social relations of society rather than in the

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1. Barak, Gregg. *In Defense of Whom?* 1980, p. 1-63.

economic system that were responsible for the sudden transformation in what previously were relatively constant crime rates. Edwin H. Sutherland's formulation of differential association "began to congeal around the view that cultural conflict of complex social organization resulting from social and economic changes involved in the industrialization of the Western world had generated a pervasive individualism and other conditions conducive to criminality." In diverse contemporary societies people interact with a wide range of people, some of which may have negative or positive effects on their lives. According to Clifford R. Shaw's and Henry D. McKay's social disorganization theory, children in areas without common values turn to delinquency because the youthful members of the community are alienated from their parents and the social institutions around them. Youth turn to deviance as a form of personal expression. Opportunity theory has been often applied in a larger context than what Cloward and Ohlin anticipated. It is no longer applied to juveniles only, but to all urban residents who lack an opportunity to prosper in society. All these theories of criminal behavior represent partial explanations of the problem of contemporary criminality.

Rural areas have traditionally had low rates of criminality. While the urban areas, even before the advent of industrialization, contended with offenders who were "harassed" and "ill-fed," the rural environment provided at least a subsistence income for most of its inhabitants. Rural area crimes were not a result of desperation but rather from interpersonal tensions exacerbated over time. Crimes of violence, the most frequent of rural offenses, were characterized by their seasonality. Crimes of assault and murder were frequently associated with alcohol consumption or the maintenance of family honor. Because families resided in the same community for centuries, hostilities among different families were sometimes perpetuated through successive generations.

Prior to the industrial revolution, crime rates were already high, a distinct geography of crime existed, and significant changes had been observed in the relationship among different categories of crime. The writings of Weber, Durkheim, and

Simmel advanced a view of urbanization in which secular values, the decline of collective sentiments and restraints, and an increase in stress and anxiety were emphasized. Their theories suggested that more people will become criminals because the absence of social cohesiveness in the urban environment would create greater impersonality; thereby facilitating the commission of crimes. The criminological consequences of currently developed nations' twentieth century development in many ways parallel the experiences in the nineteenth century. This repetition of historical patterns provides further support for the thesis that the process of development and its accompanying social changes produce common patterns of criminality in what were once and remain culturally diverse societies.<sup>2</sup>

On any given day in the United States, more than 150,000 people are held in over 3,500 local jails over the course of a year. The average cost of holding a person in jail is more than \$70 per day, or, about \$26,000 per year. Employment and earning power of the inmate is interrupted or lost when detention occurs; the dependents of the prisoners, as well as the prisoners themselves, suffer. Families of those detained may be forced to turn to public assistance as a substitute for the lost earnings. Employers may find it necessary to train a substitute. In many cases, the bar or the community must bear the cost of the appointed counsel or public defender.<sup>3</sup>

### **Why is the Rate of Crime Increasing Among Young People?**

In the past 20 years, the number of crime index offenses known to police for all crimes increased substantially. To correct for the population increase (which would increase the number of potential criminals and victims), crime offense statistics are often reported as crime rate, where crime rate equals the number of crimes divided by the population. With

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2. Shelley, Louise. *Crime and Modernization: The Impact of Industrialization and Urbanization on Crime*. 1982, p. 3-66.

3. National Coalition for Jail Reform, *The Prison Journal*, Autumn-Winter, 1981, p. 28-41.

| Offense             | United States Total | North-Eastern States | North Central States | Southern States | Western States |
|---------------------|---------------------|----------------------|----------------------|-----------------|----------------|
| Murder              | 9.0                 | 6.6                  | 8.0                  | 10.4            | 10.2           |
| Forcible Rape       | 15.0                | 14.3                 | 14.6                 | 15.4            | 15.7           |
| Robbery             | 66.8                | 101.7                | 49.5                 | 54.7            | 70.4           |
| Aggravated Assault  | 130.3               | 127.7                | 77.8                 | 155.1           | 148.5          |
| Burglary            | 207.1               | 177.9                | 166.2                | 209.7           | 275.9          |
| Larceny-Theft       | 582.5               | 475.87               | 593.9                | 566.4           | 703.1          |
| Motor Vehicle Theft | 52.6                | 49.5                 | 41.7                 | 46.0            | 78.1           |
| Arson               | 8.6                 | 8.5                  | 9.1                  | 7.8             | 9.3            |
| Crime Index Total   | 1071.9              | 961.9                | 960.6                | 1065.5          | 1311.2         |

**Sources:** Uniform Crime Reports for the United States 1983, p. 168.

few exceptions, the rate of crime for each major type of crime has increased every year for the past 20 years. The rate of violent crimes increased by 199.3 percent; faster than the rate of crimes against property, which rose by 178.1 percent. The crime with the fastest growth rate was robbery, with an increase of 263.1 percent.<sup>4</sup>

Opportunity cost, which refers to what is forgone if a choice is made to do one particular thing, is relevant as cost-benefit analysis in the decision-making processes of criminals. The concept of opportunity cost has two main applications respecting criminal behavior. Some of the people who take up crime as a career calculate that their prospective earnings will exceed the income they forgo by not taking up legitimate employment. Another application has to do with the probability of finding a job. If one is criminally inclined, unemployed, and feels that the chances of getting a job are small or nonexistent, the opportunity cost of turning to crime, i.e., the forgone wages of legitimate employment, will seem minimal. Such assessments may have contributed to the large increase in crimes committed by young people. From 1960 to 1979, arrests for "serious" and other crimes of those ages 18 or older doubled while arrests of those under 18 quadrupled. The main infractions of those under 18 were against property rather than persons. Forty-four percent of all arrests for burglary, larceny, and motor vehicle theft were of youngsters under 18 years of age. One reason for the rise in crimes committed by the young has simply been the huge increase, absolute and relative, in their number. Another reason for the swelling crime rate among the younger people was a large upswing in youth unemployment and the associated reduction in the opportunity costs of crime. As the young people perceived that relatively few jobs were available they presumably reduced their estimates of the opportunity costs of turning to crime. It is clear that, from an opportunity cost point of view, young

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4. Hellman, Daryl. *The Economics of Crime*, 1980, p. 1-21.

blacks have had less incentive to refrain from criminal activities than have young whites.<sup>5</sup>

Another factor for the crime rate among younger people is a lower growth of real GNP and disposable income. Therefore, during the time period that the rates of real GNP and disposable income are low, probably more criminals were arrested. Arrests are primarily an indication of law enforcement activity as it relates to crime. For example, during 1983, law enforcement agencies made an estimated 11.7 million arrests nationwide for all criminal infractions except traffic violations. The table below shows the crime index arrest rates per 100,000 inhabitants in the four geographic regions of the United States.

### **The Economic Impact of Criminal Activity**

In 1974, total crime expense was \$88.6 billion, or an average of about \$420 per person in the United States. Using an inflation rate of approximately 30 percent from 1974 to 1978, this figure would total over \$115 billion in 1978 dollars. Of the \$88.6 billion, \$20.6 billion was spent on public and private law enforcement, therefore, \$68 billion was the cost of actual criminal acts. The estimates do not include certain kinds of psychic costs associated with the crimes; for example, the cost of pain and suffering. Other costs are more measurable, for example; reduced retail sales incurred when stores do not open at night, increased transportation costs incurred by using cars and taxis instead of walking, and resources and costs spent on moving to escape crime.

### **The Distribution of the Costs of Crime: Impact on Individuals**

Individuals can be affected by crime in the following ways: losses of property or productive assets, psychic cost, price effect, employment effects, and tax effects. Losses of property or productive assets are experienced directly by victims and indirectly by nonvictims; for example, if a productive asset is

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5. Fadaei, Reza. The Cost of Crimes, *International Journal of Social Economics*, Volume 16, November 1989, p. 39-40.

destroyed all individuals, even nonvictims, are affected to the extent that the productive capacity of the economy is reduced. Although neighbors' reactions will be less severe, like the victim they will also experience anxiety, anger, and so forth, which result in psychic costs. Criminal activity affects the price, and therefore the demand for and supply of various goods and services. Costs determine the quantity produced or output from the goods; in turn, the individuals in the affected industries who use the goods experience employment effects. Because of criminal activity, certain expenditures of the criminal justice system are necessary. The expenditures by the public sector at the federal, state, and local levels are financed by taxes which are paid by individuals; whether they are victims or not. The criminal justice system is financed primarily at the local level by local property taxes.

### **Public Policy Options**

As with any supply curve, an increase in the costs of doing business will cause the entire crime supply curve to shift up and to the left. Any level of output will require a higher-priced product to cover the increased costs. If this is so, we simply have to identify the costs of doing business in the criminal industry and determine how to make criminal industry costs increase. The costs associated with committing a criminal act are material costs, time costs, psychic costs, and expected punishment costs. Public policy can be used to affect each.

We may raise the cost of the materials required to perform a particular crime by altering the circumstances surrounding the typical crime. For example, making our paper currency more complicated in design increases the material costs of counterfeiting. Security devices in homes increase the kinds of materials required in a typical burglary. Time costs can also be influenced by public policy. There are two basic approaches to be used to shift the curve: (1) increase the time required to commit the crime, and (2) increase the value of the time to potential criminals by increasing the legal income opportunities either through programs to promote full employment or by increased training and other investments in "human

capital." To increase psychic costs to the potential offenders, public information and advertisement could be used to increase feelings of guilt or fear for the potential offenders. Expected punishment costs can be increased by increasing the probability of punishment in three potential ways: (1) Increase the quantity and quality of resources available to the criminal justice system, (2) increase the efficiency with which resources are used by the system; (3) reduce the existing constraints which may hinder the effectiveness of the criminal justice system; although this last course is likely to reduce personal freedom and civil liberties as well as crime.<sup>6</sup>

### **The Economic Costs of Crime in 1977**

The President's Commission Report estimated the levels of expenditure for criminal justice services in 1977 at over \$21 billion, with over \$13 billion of that sum constituting local government costs for criminal justice activities. But in 1988, the level of expenditure for criminal activities went up by \$130 billion. The reduction of crime would alter the economic workings of society and probably produce revenue that could be used for more positive ends, but major dislocations, rendering many social-control agents idle, could be disastrous to them. In this sense at least, crime is functional in American society in that it produces employment opportunities in some quantity.<sup>7</sup>

### **Crime and Poverty**

However calculated, official crime rates are almost always higher among the poor. Poor people are more likely to be arrested and convicted for a wider variety of offenses. From the economists we obtain a utilitarian perspective on how choices are made between alternative sources of income, particularly those of employment and crime. In a sentence, the models of economic choice theory, of which the criminal choice is a special case, hypothesize that all individuals,

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6. Hellman, Daryl. *The Economics of Crime*. 1980, p. 1-21.

7. Gibbons, Don. *The Economics of Crime: The Public Policy Options*. 1980, p. 38-54.

criminals and non-criminals alike, respond to incentives. In other words, the decision to commit an illegal act is reached via an egocentric cost-benefit analysis of both monetary and psychic elements. Individuals face an ongoing set of choices between illegal and legal activities. Individuals will participate in illegal activities if the anticipated returns from those illegal actions exceed the anticipated returns from legal actions. Based on the opportunities, Heineke (1978) distinguishes two general classes of models. Portfolio models address what portion of a decision maker's wealth is risked in criminal activity and, therefore, requires that all returns from illegal activity be expressed in monetary equivalents. Time-allocation models note the importance of psychic consequences and the fact that illegal activities are time consuming and, therefore, it views participation in illegal activities as, formally, "a labor supply problem with uncertain consequences."

Perhaps the most persuasive proof of a direct, casual relationship between joblessness and crime has been presented by Dr. M. Harvey Brenner, an economist at the Johns Hopkins University, who came to the following conclusions: property crime, delinquency, homicide, and admissions to prison vary with unemployment; unemployment directly influences parole, mandatory release violations, and recidivism.

### **Ethnic Background and Location of the Lower Classes**

The percentage of the United States' population affected by poverty was 14% in 1985. Only 10% of whites are affected by poverty. The percentage of blacks affected by poverty decreased from 33.8% in 1984 to 31.3% in 1985. While the percentage of impoverished blacks is falling, the percentage of Hispanics below the poverty line is increasing.

In 1984, the percentage of poor Hispanics was 28.4% and in 1985 it rose to 29%. If the trend is decreasing black and increasing Hispanic poverty continues, Hispanics will soon replace the blacks as the poorest of the poor. The average Hispanic family income was \$19,000, the average black family income was \$17,000, and the average white family income was \$29,152. It may appear that the Hispanic family income is

TABLE 1: Persons Below Poverty Level and Below 125 Percent of Poverty Level  
1975 to 1984

| Year | Number Below Poverty Level (mil.) |       |       |                             | Percent Below Poverty Level |       |       |                             | Below 125 Percent of Poverty Level |                       | Average Income Cutoffs for Non-Farm Family of 4 |                          |
|------|-----------------------------------|-------|-------|-----------------------------|-----------------------------|-------|-------|-----------------------------|------------------------------------|-----------------------|-------------------------------------------------|--------------------------|
|      | All Races <sup>1</sup>            | White | Black | Spanish Origin <sup>2</sup> | All Races <sup>1</sup>      | White | Black | Spanish Origin <sup>2</sup> | Number (mil.)                      | % of total population | At poverty level                                | At 125% of poverty level |
| 1975 | 25.9                              | 17.8  | 7.5   | 3.0                         | 12.3                        | 9.7   | 31.3  | 26.9                        | 37.2                               | 17.6                  | 5,500                                           | 6,875                    |
| 1976 | 25.0                              | 16.7  | 7.6   | 2.8                         | 11.8                        | 9.1   | 31.1  | 24.7                        | 35.5                               | 16.7                  | 5,815                                           | 7,269                    |
| 1977 | 24.7                              | 16.4  | 7.7   | 2.7                         | 11.6                        | 8.9   | 31.3  | 22.4                        | 35.7                               | 16.7                  | 6,191                                           | 7,739                    |
| 1978 | 24.5                              | 16.3  | 7.6   | 2.6                         | 11.4                        | 8.7   | 30.6  | 21.6                        | 34.2                               | 15.8                  | 6,662                                           | 8,328                    |
| 1979 | 25.3                              | 16.8  | 7.8   | 2.9                         | 11.6                        | 8.9   | 30.9  | 21.6                        | 35.6                               | 16.3                  | 7,412                                           | 9,265                    |
| 1980 | 29.3                              | 19.7  | 8.6   | 3.5                         | 13.0                        | 10.2  | 32.5  | 25.7                        | 40.7                               | 18.1                  | 8,414                                           | 10,518                   |
| 1981 | 31.8                              | 21.6  | 9.2   | 3.7                         | 14.0                        | 11.1  | 34.2  | 26.5                        | 43.7                               | 19.3                  | 9,287                                           | 11,609                   |
| 1982 | 34.4                              | 23.5  | 9.7   | 4.3                         | 15.0                        | 12.0  | 35.6  | 29.9                        | 46.5                               | 20.3                  | 9,862                                           | 12,328                   |
| 1983 | 35.5                              | 24.2  | 9.9   | 4.6                         | 15.3                        | 12.2  | 35.7  | 28.1                        | 47.5                               | 20.5                  | 10,178                                          | 12,723                   |
| 1984 | 33.7                              | 23.0  | 9.5   | 4.8                         | 14.4                        | 11.5  | 33.8  | 28.4                        | 45.3                               | 19.4                  | 10,609                                          | 13,261                   |

<sup>1</sup> Includes other races not shown separately

<sup>2</sup> Persons of Spanish origin may be of any race.

Source: U.S. Bureau of the Census, Current Population Reports, series P-60, Nos. 164 and 149.

larger, but the average Hispanic family also has more members. Because of this, the average per capita annual income for Hispanics is \$6,613, compared to \$6,840 for blacks.

The various ethnic groups show differences by statistical correlations with poverty and then correlated with place of residence. The Northeast region of the United States has the highest percentage of poverty. The percentage of Hispanic families below the poverty line in the Northeast is 28%. An example of a Northeastern city with a high poverty rate and high percentage of Hispanics is Newark, New Jersey. The population in 1980 was 326,105 and 33% of these were below the poverty line.

In the Southern region of the U.S. the percentage of the population living in poverty is lower; 90% of Hispanic families and 33% of black families. An example of a Southern city is Birmingham, Alabama. Its population in 1980 was 280,000 and 22% lived below the poverty line.

The Western region of the U.S. has the lowest percentages of poverty; 26% of Hispanic families and 20% of black families. An example of a Western city with a lower poverty rate is Los Angeles, California. Its population in 1980 was 2.9 million of which 16% were below the poverty line.

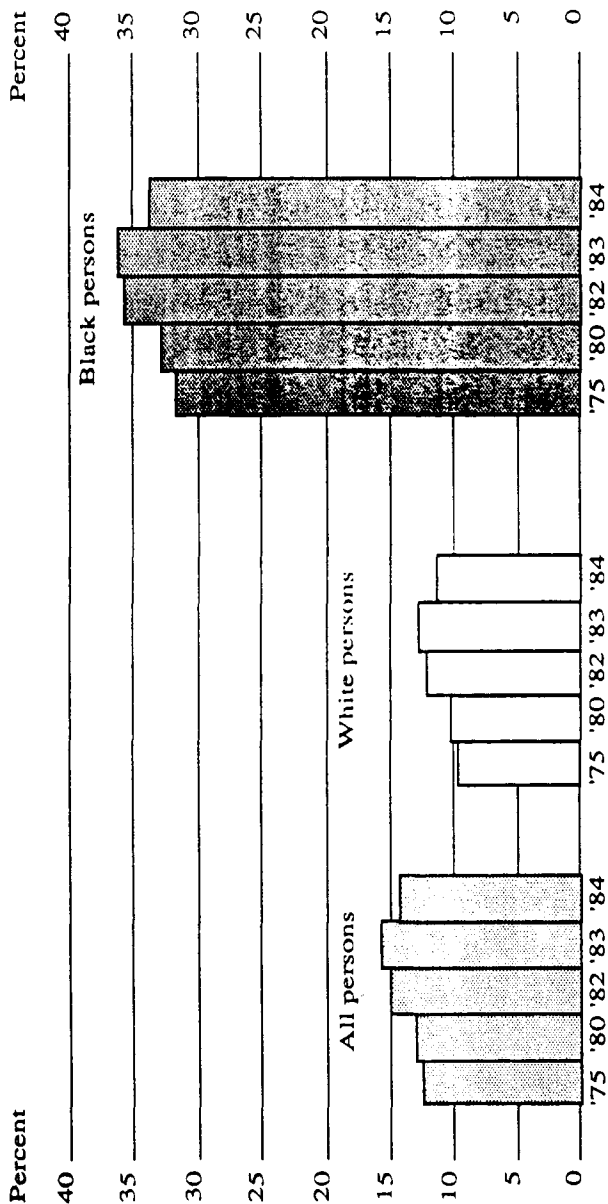
In the Midwest, the population of blacks and Hispanics is lower than in the other regions. The main poverty problems rest in the rural farm family. Thirty percent of rural farm families are in poverty; 75% of these families being white.

Most of the income in the U.S. is earned by the middle class. This group earns roughly 60% of the total national income. The middle class is defined for this purpose as those individuals making \$15,000 to \$50,000 a year. Nearly two-thirds of the nation's total working force falls in this category. On the average, nationwide, a black family earns \$11,000 less per year than a white family.<sup>8</sup> Consider the data in Table 1, which indicates the persons below the poverty level from 1975 to 1984. Figure 1 is most helpful when we have many catego-

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8. "Race and Poverty: A Forty Year Record," *American Quarterly*. Spring, 1988, p. 56: 152-160.

Figure 1: Percent of Persons Below Poverty Level  
1975 to 1984



Source: U.S. Bureau of the Census.

ries to represent; and indicates the distribution of poverty between white and nonwhite Americans.

### Method

I selected crime index as a dependent variable and unemployment rate, and sales of alcohol over the last twenty years as independent variables (see table 2). The purpose is to investigate: (1) whether there was any relationship at all between the dependent variable and the independent variables, (2) if there was a relationship, whether the two domains shared two as opposed to only one dimension, (3) what the pattern of relationships was, relating variables in one domain with those in the other two, and (4) what are solutions or remedies?

Therefore, the objective of this paper is to test some relationship in the multiple regression model as indicated below:

$$Y_c = b_0 + b_1X_1 + b_2X_2 + U_i$$

| <u>Analysis of Variance for the Regression</u> |             |                   |                 |                |                   |
|------------------------------------------------|-------------|-------------------|-----------------|----------------|-------------------|
| <u>Source of variation</u>                     | <u>D.F.</u> | <u>Sum of sq.</u> | <u>Mean sq.</u> | <u>F value</u> | <u>Prob.&gt;F</u> |
| Attributable to<br>Regression (model)          | 2           | 1.3112            | 0.6556          | 62.591         | 0.0001            |
| Deviation from<br>Regression (error)           | 17          | 0.17807           | 0.01048         |                |                   |
| Total                                          | 19          | 1.4893            |                 |                |                   |

Where:

$Y_c$ : Crime index as a dependent variable

$X_1$ : Unemployment rate as an independent variable

$X_2$ = Sales of alcohol as an independent variable

**Selected Statistics, 1965-1986**

Table 2: Crime Index, Unemployment Rate, and Alcohol Sales

| (1)<br>Year | (2)<br>Crime (b)<br>Index<br>(1,000) | (3)<br>Unem-(c)<br>ployment<br>Rate<br>(1,000) | (4)<br>Alcohol<br>Sales<br>(\$1,000) |
|-------------|--------------------------------------|------------------------------------------------|--------------------------------------|
| 1965        | 4,695.50                             | .0045                                          | 5,674,000                            |
| 1966        | 5,175.20                             | .0038                                          | 6,758,000                            |
| 1967        | 5,849.20                             | .0038                                          | 6,600,000                            |
| 1968        | 6,658.90                             | .0036                                          | 6,969,000                            |
| 1969        | 7,343.30                             | .0035                                          | 7,403,000                            |
| 1970        | 8,034.10                             | .0049                                          | 8,300,000                            |
| 1971        | 8,509.80                             | .0059                                          | 8,773,000                            |
| 1972        | 8,173.40                             | .0056                                          | 9,200,000                            |
| 1973        | 8,638.37                             | .0049                                          | 9,600,000                            |
| 1974        | 8,405.88                             | .0056                                          | 10,300,000                           |
| 1975        | 11,292.40                            | .0085                                          | 11,800,000                           |
| 1976        | 11,349.70                            | .0077                                          | 13,700,000                           |
| 1977        | 10,984.50                            | .0071                                          | 13,100,000                           |
| 1978        | 11,209.00                            | .0061                                          | 13,600,000                           |
| 1979        | 12,249.50                            | .0058                                          | 15,100,000                           |
| 1980        | 13,423.80                            | .0071                                          | 16,800,000                           |
| 1981        | 13,423.80                            | .0076                                          | 17,600,000                           |
| 1982        | 12,974.40                            | .0097                                          | 18,100,000                           |
| 1983        | 12,108.60                            | .0096                                          | 19,000,000                           |
| 1984        | 11,881.80                            | .0075                                          | 19,500,000                           |

- (a) International Journal of Social Economics, Volume 16, 1989, p. 41.  
 (b) Economic Report of the President  
 (c) U.S. Department of Commerce Bureau of the Census

$b_1$  and  $b_2$  are the parameters of the regression coefficient and  $b_0$  is constant and  $U$  is an error (Technically,  $U$  is known as the stochastic disturbance, or stochastic error term.).

In order to test the hypothesis, it was determined that crime is a function of the aforementioned variables.

$$Y_c = F(X_1, X_2).$$

The original regression model used the two independent variables. Therefore, the results are the following:

$$Y_c = 0.23793 + 225,958.53X_1 + 0.000491986X_2 + U$$

$$(SE) \quad (0.080) \quad (237,740) \quad (.0000100)$$

$$t = (3.007) \quad (0.96) \quad (4.95)$$

$$R^2 = 0.8804$$

$$\bar{R}^2 = 0.8664(\text{adjusted})$$

As was said before, in this regression model we have two independent variables: unemployment, and sales of alcohol. Crime is the dependent variable. R-square is 0.8804; a good fit.

In this regression test, both independent variables proved to be significant according to their F values.

When the regression model ran, it was found that  $Y_c$ ,  $X_1$  and  $X_2$  were highly correlated; at 0.842 and 0.935 respectively.

The correlation between independent variables  $X_1$ , and  $X_2$  is shown in the following matrix form.

### Correlation Matrix from Computer

Involving dependent and independent variables

$$M = \begin{bmatrix} Y_c & X_1 & X_2 \\ 1,00000 & 0.84155 & 0.93492 \\ 0.84155 & 1,00000 & 0.85606 \\ 0.93492 & 0.85606 & 1.00000 \end{bmatrix}$$

### Conclusion and Remedies

Crime is a major problem facing our society today. It is viewed as rational behavior by the economist. The economic model concentrates on the gains and costs of criminal behavior but allowance should also be made for psychic and other causes which may contribute to criminal behavior [Recent twin studies at the University of Minnesota would point to inherited personality traits as a probable component of criminal potentialities – Ed.]. The economic impact of crime is felt by all people and the costs of crime are not all monetary. Crime seems to be most common among the young, black, poor, and unemployed. Statistically speaking, crime is the most expensive product of our society today. It affects us not only through our pocketbooks but emotionally as well.

Under the economic model, if unemployment is reduced the level of crime should decline. If there were more advantages to honest labor, dishonest labor would be less attractive to the individual involved. The job market does not seem to be keeping pace with the ever-increasing rate of population growth. A reduction in births would reduce the number of available candidates in the job market. Furthermore, if there were a decrease in world population, people in different countries would be able to find employment within their own countries, and the disruptive and deleterious effects of massive international migration might be avoided.

Appropriate education is another factor that can be used in the fight against crime and if this leads to a decrease in poverty and a moral resistance to the temptations of crime it could conceivably reduce crime amongst broad segments of the population. Strictly prohibiting the use of drugs (although I have not considered drugs in the above study) and intoxicants is another factor that would seem likely to reduce the crime rate in a society which was prepared to take these steps. Effective law enforcement is another means of reducing the crime rate by raising the perceived cost of crime. But at the same time, to ensure respect for the law all legislation should be in keeping with the moral values of the society and clear,

reasonable, and consistent with the principles of enforceability, fairness, and humanitarianism.

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# **SOCIAL AND DEMOGRAPHIC ORIGINS OF THE EUROPEAN PROLETARIAT**

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## **The Problem**

Saxony is the only large European territory where we can make reliable estimates of the absolute increase of the different social classes and strata (Blaschke 1967). Here, from the midst of the 16th until the midst of the 19th century the overall population tripled. However, the absolute number of peasants (*Vollbauern*) remained nearly the same, the number of full citizens in towns doubled, and in villages the cottars (*Häusler*) and laborers (*Handarbeiter*) were in 1850 ten times as numerous as in 1550 and their relative proportion rose from about a tenth to more than a half of the total population. For anybody who is confronted with these figures and who remembers the number of siblings of his great-grandfather, it seems to be obvious that there was a disproportionate increase of the rural proletariat as a consequence of its higher natural increase.

Accordingly, Charles Tilly (1984; p. 39) proposed the following hypothesis: "On the average, proletarians responded to economic expansion with greater decline in mortality and greater increases in fertility than nonproletarians did, and responded to economic contraction with greater increases in mortality but no greater declines in fertility than nonproletarians did. The consequence was a disproportionate natural increase of proletarians in good times, not completely compensated by the natural decrease of bad times." Tilly, whose point of view, we must admit, was nothing more than "informed" speculation and not supported by reliable empirical data, goes even further:

With a zero natural increase in the non-proletarian population, the figures would imply that the net increase of 11 million nonproletarians between 1500 and 1800

was entirely due to social mobility out of the proletariat.... Whereas Marx implicitly treated the lifetime mobility of workers and their households from nonproletarian to proletarian positions as the principal component of the proletariat's growth my account gives far greater weight to... natural increase.... By any reasonable argument, natural increase must have played the major role in the growth of the European proletariat since 1500.... The modification fits nicely with that brand of Marxist analysis., which emphasizes the continuity of working-class culture from one generation to the next.

### **Empirical Evidence Against Tilly's neo-Marxist Hypothesis**

In view of the importance of this question (Weiss et al. 1986) it seems remarkable that until now the relationship between Tilly's prejudice and the already known empirical data has not been discussed. Tilly himself (1984; p. 48), citing a study by Winberg (1978), cannot avoid the following conclusion: "The opposite was true among the Swedish villages studied by Winberg." Winberg had observed that:

Between 1750 and 1850 the population of Sweden doubled.... The increase was very unequally distributed among the different social groups of the rural population. The number of landholding peasants rose by about 10%, while the number of the landless more than quadrupled. The dominant interpretation is played by the 'autonomous death-rate', i.e. a death-rate that remains relatively autonomous in relation to the economic development.... Before 1805 reproduction among the landless was so low (231 children reaching 5 years of age per 100 married women) that the group was hardly able to reproduce itself.... About half of the landless heads of families came from peasant families. Of those sons of peasants for whom information is available one out of three was absorbed by the proletariat.

Also based on family reconstitution, Skipp (1978) has published a very thorough study of five parishes now forming

**Table 1**

Demographic means in landed and landless families in three English villages: Sheldon, Solihull and Yardley 1560-1674 (n = figure in brackets).

|                                       | Length of<br>marriage union<br>years | Birth<br>intervals<br>months | Childbearing<br>span<br>years | Closed<br>family size<br>children |
|---------------------------------------|--------------------------------------|------------------------------|-------------------------------|-----------------------------------|
| above: <u>landed couples marrying</u> |                                      |                              |                               |                                   |
| below: Landless couples marrying      |                                      |                              |                               |                                   |
| 1560-99                               | 26.0 (30)                            | 31.5 (56)                    | 12.9 (22)                     | 4.1 (31)                          |
|                                       | 26.3 (17)                            | 32.4 (29)                    | 8.9 (15)                      | 3.0 (26)                          |
| 1600-24                               | 27.0 (32)                            | 29.9 (58)                    | 12.3 (15)                     | 4.4 (33)                          |
|                                       | 17.0 (25)                            | 34.9 (30)                    | 8.8 (12)                      | 2.1 (26)                          |
| 1625-49                               | 26,6 (46)                            | 29,4 (88)                    | 12,5 (32)                     | 4,0 (41)                          |
|                                       | 20,8 (16)                            | 29,9 (31)                    | 12,0 (14)                     | 3,4 (19)                          |
| 1650-74                               | 21,1 (53)                            | -                            | -                             | 3,0 (56)                          |
|                                       | 19,6 ( 8)                            | -                            | -                             | 3,4 (12)                          |

Source: SKIPP, Victor: Crisis and Development. An Ecological Case Study of the Forest of Arden 1570-1674. Cambridge: Cambridge University Press 1970, p. 28

the periphery of the city of Birmingham in England (see Table 1).

According to Skipp, a crisis passes through three distinct phases. "In the opening years poorer women are still bearing children, but a high proportion of their offspring are failing to survive infancy because of inadequate feeding. Then, at the heart of the crisis, the food-base becomes so inadequate that many of the poorer women are unable to conceive at all. Finally, with its gradual abatement, they again begin to do so; but the percentage of miscarriages is high." In an exemplary study of a French village, Charbonneau (1970) could show that in all investigated 8 fertility parameters (intervals between births, absolute number of children, and percentage of infertile women) the poorer inhabitants (*manoeuvres*; *sabotiers*) were exceeded by the richer ones (*laboureurs*; *marchands*; *artisans*) from 1665 to 1765. During this time the share of the poor population rose from 31% to 49%, but not as a result of their own superior natural increase. Since the French "laboureur" means "peasant," and not "laborer," some English authors seem to have misinterpreted Charbonneau's tables. Craftsmen (*artisans*) in this village were not prospering (their share decreased, in contrast to the overall development, from 30% in 1665 to 20% in 1765) and reflecting this difficult economic situation the mortality of their children up to the age of 12 was higher than among the poor day laborers (whose mortality of children was higher than among peasants). This latter example demonstrates how a general trend can be clouded by specific circumstances.

Tilly (1984) is also unaware of a large body of evidence accumulated in Middle Europe during the last decades, which contradicts his hypothesis. Recently, Weiss (1990) could review 12 of such studies. For example, the family reconstitution study by Heckh (1952) comprised 6 parishes (including 9 villages) in Wuerttemberg/Southwest Germany. During 1650-1799 peasants in first marriages ( $n = 666$ ) had 6.4 children, of which 3.2 reached an age of 15 years; during 1800-1899 ( $n = 551$ ) 6.8 children, of which 4.0 reached age 15. During 1650-1799 the "leading group" in these villages ( $n = 117$ ) had

**Table 2**

**Social structure of rural population: Saxony without Upper Lusatia  
1565-1870 (rounded values).**

|      | Rural<br>population | Peasants | Smallholders | Cottars<br>as unskilled<br>labor | Craftsmen | Total sum<br>in any<br>trade |
|------|---------------------|----------|--------------|----------------------------------|-----------|------------------------------|
|      | thousands           | ‰        | ‰            | ‰                                | ‰         | ‰                            |
| 1565 | 257                 | 84       | 8            | 1                                | 2         | 5                            |
| 1585 | 278                 | 79       | 9            | 3                                | 4         | 9                            |
| 1630 | 297                 | 74       | 8            | 4                                | 6         | 12                           |
| 1660 | 310                 | 65       | 11           | 6                                | 9         | 21                           |
| 1690 | 363                 | 60       | 13           | 9                                | 10        | 24                           |
| 1720 | 409                 | 54       | 14           | 12                               | 12        | 29                           |
| 1750 | 470                 | 47       | 17           | 14                               | 14        | 34                           |
| 1780 | 524                 | 41       | 21           | 15                               | 19        | 37                           |
| 1810 | 666                 | 35       | 17           | 17                               | 24        | 44                           |
| 1840 | 887                 | 27       | 12           | 24                               | 27        | 56                           |
| 1870 | 1 260               | 19       | 7            | 29                               | 33        | 67                           |

6.6 children, of which 4.6 reached age 15; during 1800-1899 ( $n = 78$ ) 7.3 children, of which 4.6 reached age 15. In contrast, during 1650-1799 proletarians (*Tagelöhner*) ( $n = 356$ ) had 5.0 children, of which 2.7 reached age 15; during 1800-1899 ( $n = 363$ ) 5.8 children, of which 3.3 reached age 15.

Before 1815 the genealogical roots of the population growth cannot be traced to the rural proletariat, and nobody with any sense for reality will search for them among the urban proletariat. As Pound (1972) found:

Between 1500 and 1630 in English cities there was... a differential fertility pattern by which the upper classes produced more children than the poor. Thus an Elizabethan census of some 450 poor families with children in Norwich shows an average of 2.2 children per household, against between 4.25 and 4.7 children per household of well-to-do merchants of Norwich and Exeter.

The same study by Pound found a remarkable higher rate of remarriages in the upper strata, and outspoken differences in infant mortality. In 18th century Berlin, the proletarians (*Tagelöhner, Gesellen*) were not able to reproduce themselves (Schultz 1987). 2.3 births per marriage are contrasted with a children mortality of about 60%. Despite this and because of heavy influx from smaller towns and from the countryside, the absolute number of proletarians was always growing. In contrast, in Berlin the reproductive balance of craftsmen and merchants was positive. In 1829 in Göttingen (Sachse 1987; for more detail and further references see Weiss 1990) per 100 households of the very poor were 93 children (of the lower stratum as a whole, i.e. 40% of the total population, 112 children), of the middle stratum (comprising 55% of the population) 164 children, of the upper stratum 289 children.

These already published data show that Tilly's neo-Marxist views concerning the continuity (1984) of the European proletariat are misconceptions.

The 19th century, especially, was characterized in Middle and Western Europe by an unprecedented population in-

**Table 3**

**Social mobility (in %) of children of peasants: Saxony (without Upper  
Lusatia) 1595-1870.**

|      | the sons are<br>(the daughters are married with) |             |            |            |              |                         |              | Children<br>per<br>100<br>fathers |     |
|------|--------------------------------------------------|-------------|------------|------------|--------------|-------------------------|--------------|-----------------------------------|-----|
|      | Peasant                                          | Smallholder | Craftsman  | Cottar     | Clerical     | Inhabitant<br>of a town | n            |                                   |     |
| 1595 | 35<br>(79)                                       | 7<br>(10)   | 2<br>(2)   | 2<br>(2)   | 1<br>(2)     | 3<br>(5)                | 100<br>(100) | 246<br>(165)                      | 110 |
| 1630 | 88<br>(82)                                       | 5<br>(10)   | 2<br>(5)   | 1<br>(1)   | 0.4<br>(0.4) | 4<br>(2)                | 100<br>(100) | 344<br>(239)                      | 101 |
| 1660 | 80<br>(71)                                       | 9<br>(11)   | 5<br>(8)   | 2<br>(3)   | 2<br>(2)     | 3<br>(6)                | 100<br>(100) | 411<br>(288)                      | 101 |
| 1690 | 77<br>(69)                                       | 11<br>(13)  | 4<br>(8)   | 3<br>(4)   | 2<br>(1)     | 4<br>(6)                | 100<br>(100) | 529<br>(401)                      | 111 |
| 1720 | 76<br>(68)                                       | 12<br>(18)  | 3<br>(6)   | 5<br>(4)   | 0.4<br>(1)   | 4<br>(4)                | 100<br>(100) | 494<br>(412)                      | 111 |
| 1750 | 73<br>(66)                                       | 13<br>(14)  | 5<br>(7)   | 4<br>(6)   | 1<br>(1)     | 5<br>(6)                | 100<br>(100) | 407<br>(370)                      | 113 |
| 1780 | 68<br>(56)                                       | 19<br>(23)  | 4<br>(8)   | 4<br>(3)   | 2<br>(1)     | 4<br>(10)               | 100<br>(100) | 309<br>(274)                      | 118 |
| 1810 | 65<br>(53)                                       | 15<br>(21)  | 7<br>(12)  | 5<br>(5)   | 1<br>(1)     | 8<br>(9)                | 100<br>(100) | 224<br>(222)                      | 134 |
| 1840 | 59<br>(50)                                       | 11<br>(17)  | 10<br>(15) | 8<br>(8)   | 2<br>(2)     | 11<br>(7)               | 100<br>(100) | 224<br>(225)                      | 137 |
| 1870 | 51<br>(43)                                       | 12<br>(11)  | 11<br>(19) | 14<br>(12) | 4<br>(4)     | 15<br>(10)              | 100<br>(100) | 186<br>(210)                      | 163 |

crease. Armies of millions of people, among them an increasing percentage of unskilled laborers, were crowding in the suburbs and even more in suburban villages (which at the end of the century were incorporated into the cities). At the turn of the century, Jack London, as a contemporary keen observer of social reality, wrote in his essay "The People of the Abyss" (1902) that in the slums of London: "Year by year, and decade after decade, rural England pours in a flood of vigorous strong life, that not only does not renew itself, but perishes by the third generation. Competent authorities state that the London workman whose parents and grandparents were born in London is so remarkable a specimen that is rarely found."

Contemporary statistics on internal migration and differential children mortality confirm London's impression. Yet, in 1881 London had already reached an advanced stage of the mobility transition (Zelinsky 1971), with a relatively high 63% of its inhabitants being born within London (Bucher 1987). By comparison with London, in the same year, the demographically retarded Berlin had still 51% new arrivals from the countryside; and in the year 1890, in Dresden and in Chemnitz only 41% of the residents were born in the respective cities (Mayr 1903). From where did these millions come? Eager today not only to trace the geographic, but also the social roots of these millions, we get no satisfying answer from contemporary statistics. In the following presentations we will present data which will supply a broader perspective to this important question.

### **Saxony as a Research Paradigm**

Before 1900, the official statistics of Saxony, as elsewhere, provide no data about the social background of social strata or occupational groups. Social mobility and its relationship with differential fertility are problems of research only since the turn of the last century. Data on the inheritance of occupational status from father to son can be amassed from marriage registers (e.g. Schultz 1987), and – in the upper strata – from biographical collections (e.g. Stone and Stone 1984). The shortcomings of these sources is their restriction in range,

**Table 4**

Social background (in %) of cottars and other unskilled labor: Rural population of Saxony (without Upper Lusatia) 1615-1870.

| their fathers<br>(fathers-in-law)<br>were     | 1615(x)      | 1660         | 1690         | 1720         | 1750         | 1780         | 1810         | 1840         | 1870         |
|-----------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Peasants                                      | 30<br>(50)   | 21<br>(41)   | 24<br>(25)   | 21<br>(21)   | 12<br>(21)   | 13<br>(8)    | 14<br>(17)   | 11<br>(12)   | 8<br>(13)    |
| Smallholders                                  | 22<br>(8)    | 13<br>(14)   | 13<br>(11)   | 13<br>(17)   | 11<br>(9)    | 17<br>(16)   | 18<br>(19)   | 12<br>(12)   | 8<br>(12)    |
| Craftsmen                                     | 4<br>(17)    | 11<br>(9)    | 24<br>(23)   | 14<br>(22)   | 17<br>(21)   | 13<br>(25)   | 17<br>(15)   | 20<br>(29)   | 27<br>(28)   |
| Cottars                                       | 39<br>(17)   | 53<br>(32)   | 34<br>(33)   | 49<br>(34)   | 53<br>(46)   | 51<br>(43)   | 47<br>(43)   | 52<br>(41)   | 51<br>(35)   |
| Clericals                                     | 4            |              | (2)          | 3<br>(2)     | 2            | 1<br>(2)     | (1)          | 2<br>(1)     | 1<br>(2)     |
| Inhabitants<br>of a town                      | (8)          | 3<br>(5)     | 6<br>(8)     | (3)          | 5<br>(4)     | 5<br>(5)     | 3<br>(4)     | 3<br>(5)     | 4<br>(7)     |
|                                               | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) |
| n                                             | 23<br>(12)   | 38<br>(22)   | 71<br>(57)   | 108<br>(87)  | 123<br>(112) | 89<br>(83)   | 76<br>(72)   | 164<br>(153) | 204<br>(192) |
| Percentage of<br>rural population<br>sample   | 3            | 5            | 6            | 12           | 15           | 13           | 14           | 23           | 29           |
| (x) Mean of the two generations 1595 and 1630 |              |              |              |              |              |              |              |              |              |

either social or local. Marriage registers in Saxony for example, as kept since 1548, give only the occupation of the bridegroom and his father and father-in-law at the day of the ceremony. The combination of this register with other parish registers and with data from tax rolls and records of the tenure and transfer of lands (*Gerichtshandelsbücher*) could contribute to a better data basis. However, because the population is mobile both in the social and spatial dimension, the gathering of representative samples seemed to be practically impossible. In several respects our research profited from an early development of economics and culture in Saxony. As a consequence, Saxony seems to be the only European territory with a detailed population history (Blaschke 1967) where also the respective quantities of social strata are given.

Since about 1900, Saxony has become a center of genealogical research. The genealogists, mostly hobby researchers with professional backgrounds, have developed their own standards of quality which well to conform to the quality needed for data by demographers (Knodel and Shorter 1976), historians (Weiss 1989b) and sociologists. Since 1921, the Central Archive of Genealogy (1904-1945 "*Zentralstelle für Deutsche Personen- und Familiengeschichte*"; and reestablished in 1967 as "*Zentralstelle für Genealogie*") in Leipzig is collecting the results of German genealogical research. Up to now, the number of ancestry and pedigree files in this archive exceeds 11,000 and contains data on about 4,000,000 persons. The most comprehensive files comprise data on several thousand ancestors of a single contemporary person, not only amassed from parish registers but also from other sources. Because the quality of primary registers in Saxony was in some places high from the beginning, the quality of genealogical research is correspondingly high. In the 18th century parish books, data on status and occupation of a male person are always given, even in the remotest village. In the 16th and 17th centuries our analysis is restricted mostly to parishes where the genealogists have extended the data basis by means of family reconstitution (about 100 communities in Saxony!) with the use of tax rolls and records of tenure of land.

**Table 5**

**Social mobility (in %) of children of cottars and other unskilled labor:  
Rural population of Saxony (without Upper Lusatia) 1660-1870.**

|      | the sons are<br>(the daughters are married with) |             |            |            |          |                         |              |              |
|------|--------------------------------------------------|-------------|------------|------------|----------|-------------------------|--------------|--------------|
|      | Peasant                                          | Smallholder | Craftsman  | Cottar     | Clerical | Inhabitant<br>of a town |              | n            |
| 1660 | 13<br>(21)                                       | 15<br>(16)  | 20<br>(21) | 44<br>(37) | 2<br>(2) | 7                       | 100<br>(100) | 46<br>(19)   |
| 1690 | 13<br>(32)                                       | 13<br>(10)  | 30<br>(20) | 38<br>(32) | (2)      | 8<br>(3)                | 100<br>(100) | 64<br>(59)   |
| 1720 | 11<br>(13)                                       | 8<br>(6)    | 25<br>(33) | 51<br>(39) | 2<br>(3) | 5<br>(6)                | 100<br>(100) | 105<br>(78)  |
| 1750 | 3<br>(11)                                        | 11<br>(10)  | 17<br>(20) | 60<br>(46) | 2<br>(2) | 9<br>(11)               | 100<br>(100) | 108<br>(110) |
| 1780 | 3<br>(9)                                         | 17<br>(19)  | 25<br>(26) | 45<br>(39) | 2<br>(1) | 7<br>(7)                | 100<br>(100) | 99<br>(93)   |
| 1810 | 5<br>(5)                                         | 8<br>(12)   | 30<br>(26) | 42<br>(36) | 1<br>(7) | 14<br>(11)              | 100<br>(100) | 86<br>(81)   |
| 1840 | 2<br>(2)                                         | 6<br>(7)    | 24<br>(28) | 51<br>(46) | 1        | 16<br>(17)              | 100<br>(100) | 167<br>(131) |
| 1870 |                                                  | 3<br>(6)    | 29<br>(33) | 49<br>(44) | 2<br>(1) | 17<br>(16)              | 100<br>(100) | 211<br>(153) |

From 500 ancestry and pedigree files we drew five random samples of couples (in most cases married ones), each sample comprising about 2200 couples for the following years of marriage: 1548-1649, 1650-1699, 1700-1749, 1750- 1814, 1815-1870. The drawn quota are representative with respect to main social strata and town\countryside distribution given by Blaschke (1967). In the 19th century, upward mobility in the families traced by the pedigree authors may lead to bias in the data. In the 1815-1870 random sample we included therefore nearly 1000 couples from village genealogies (*Ortsfamilienbüchern*) and descendants of probands of humble origin. For each of the 11,000 couples we listed occupation, status and possession, place of birth and residence and the respective years of birth, marriage (including the order of marriage), and death; and analogous data for both father and father-in-law (Weiss 1989a; for more detail see the forthcoming monograph on this project). This data were encoded for social criteria and type of settlement. With our method we saved at least 90% of time and costs. Certainly, future research will be more sophisticated, but also far more expensive. Because of increasing unreliability of primary sources, results for the time before 1650 can only be tentative. The representativity holds only for established families; young men (servants, soldiers, apprentices) without family cannot be taken into account. Therefore, the years given in the tables refer always to a male population with a mean age of about 40 years (based on an estimated marriage age of about 25 years plus 15 years).

Social history can always be only an approximation. Where there is no totality of sources, there can be no completely unbiased results. For the social mobility and origin of 1,000 peasants it is of no importance whether there are 10 or even 30 persons, more or less, in the sample; the fathers and fathers-in-law of the peasants remain always the same. An error, however, could result from the inclusion of an over-represented number of rich peasants or of peasants from villages bordering towns. Such bias we have tried to avoid.

One of the main problems was the fuzziness of denominations and their change in time and place. Here, in an English

**Table 6**

Social background (in %) of urban proletarians: Saxony (without Upper Lusatia) 1690-1870.

| their fathers<br>(fathers-in-law)<br>were | 1690         | 1720         | 1750         | 1780         | 1810         | 1840         | 1870         |
|-------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Urban proletarians                        | 46<br>(25)   | 40<br>(41)   | 44<br>(25)   | 49<br>(28)   | 40<br>(24)   | 36<br>(22)   | 23<br>(24)   |
| Urban craftsmen and<br>small tradesmen    | 27<br>(40)   | 17<br>(35)   | 24<br>(33)   | 18<br>(34)   | 17<br>(34)   | 26<br>(29)   | 23<br>(33)   |
| Clericals                                 |              |              | (4)          | (6)          | 3<br>(7)     | (2)          |              |
| Men of the upper<br>stratum               |              |              | 4            |              |              | 2            | (2)          |
| Inhabitants of<br>villages                | 27<br>(35)   | 44<br>(24)   | 28<br>(38)   | 33<br>(31)   | 40<br>(35)   | 36<br>(47)   | 54<br>(42)   |
|                                           | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) | 100<br>(100) |
| n                                         | 22<br>(20)   | 18<br>(17)   | 25<br>(24)   | 33<br>(32)   | 30<br>(29)   | 50<br>(45)   | 57<br>(55)   |
| Percentage of urban<br>population sample  | 4            | 4            | 6            | 8            | 8            | 11           | 12           |

publication it would make no sense to go into details (the German readers should refer to Weiss 1989a and 1991). The practical consequence of this is a certain amount of misclassification and hence a small percentage of mobility, not real, but as the consequence of misclassification of either son or father (or father-in-law.) In the 16th and 17th centuries, in many cases, the land belonging to a peasant, cannot be inferred from the parish books and the genealogies.

From the statistical analysis of tax rolls (Schwarze 1975) we must conclude that the percentage of smallholders was, during these centuries, already higher, and our data are representing only the lower boundary. As a consequence of growing reliability of classification, an undetermined, but small, percentage of smallholders (Teilhüfner; Gärtner) has a "peasant" as father who was also already a smallholder. In the case of change of occupation and residence, status at a mean age of about 40 years was the one fixed determinant for classification.

As a trade between research economy, validity of content, and statistical reliability the following categories were used:

*A. Rural population (see Table 2)*

1. Peasants (*Vollbauern; Anspanner, Hüfner, Pferdner*)
2. Smallholders (*Teilhüfner; Gärtner*)
3. Craftsmen (*Landhandwerker*) and traders (*ländliche Gewerbetreibende*)
4. Cottars (*Häusler*) and other unskilled labor (*Hausgenossen*) as lodgers
5. Clericals in a broad sense (*Pfarrer; Schulmeister; Verwalter*)
6. Nobility

Smallholders were also called gardeners. Cottars had a dwelling with a very small plot of land and had to sell some of their labor to survive. With respect to their social status craftsmen and traders were also cottars, some of them gardeners. The figures were encoded in such a way that a separate analysis of craftsmen, with or without land, was always possible.

Because gardeners and other smallholders had their own plot of land of a size of an eighth, a quarter or a half of a

**Table 7**

**Population surplus of peasants and spatial mobility (in %): Saxony  
(without Upper Lusatia) 1595-1870.**

|                         | Population<br>surplus<br>of<br>peasants | Influx from<br>countryside<br>into towns | Spatially<br>immobile<br>(born in<br>the same<br>community) | Spatially<br>immobile<br>rural<br>cottars | Influx into<br>suburban<br>villages<br>from other<br>villages | Immigration<br>into<br>Congress<br>Saxonia |
|-------------------------|-----------------------------------------|------------------------------------------|-------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------|--------------------------------------------|
| 100% are, respectively, |                                         |                                          |                                                             |                                           |                                                               |                                            |
|                         | total of<br>peasants                    | total of<br>all towns                    | total<br>population                                         | total of<br>rural<br>cottars              | total of<br>suburban<br>villages                              | total<br>population                        |
| 1595                    | 116                                     | 3                                        | 67                                                          | 69                                        | .                                                             | 4                                          |
| 1630                    | 101                                     | 10                                       | 64                                                          | 71                                        | .                                                             | 3                                          |
| 1660                    | 101                                     | 13                                       | 63                                                          | 56                                        | .                                                             | 4                                          |
| 1690                    | 111                                     | 13                                       | 65                                                          | 68                                        | .                                                             | 4                                          |
| 1720                    | 111                                     | 15                                       | 64                                                          | 66                                        | .                                                             | 3                                          |
| 1750                    | 113                                     | 20                                       | 63                                                          | 63                                        | .                                                             | 4                                          |
| 1780                    | 118                                     | 18                                       | 59                                                          | 56                                        | - 9 (sic)                                                     | 5                                          |
| 1810                    | 134                                     | 21                                       | 55                                                          | 51                                        | 13                                                            | 5                                          |
| 1840                    | 137                                     | 26                                       | 49                                                          | 47                                        | 20                                                            | 6                                          |
| 1870                    | 163                                     | 31                                       | 42                                                          | 43                                        | 24                                                            | 7                                          |
| no data                 |                                         |                                          |                                                             |                                           |                                                               |                                            |

peasants share, they were not proletarians. In this case, Tilly (1984; p. 31) has misinterpreted the classification by Blaschke (1967), who, in his turn, created the category "in-dweller" (*Inwohner*) and thought it would be a good and general substitute for lodgers (*Hausgenossen*) and servants. However, in a very detailed analysis we could prove (see again the German publications by Weiss 1989a and 1991) that the term "in-dweller" (*Inwohner*) is misleading because in the 16th and 17th centuries in some parts of Saxony everybody could be a *Inwohner* – which denoted nothing more than an inhabitant in our modern sense of the word, i.e. a "*Inwohner*" (a lexically older form of *Einwohner* "inhabitant" – could be a peasant, gardener or cottar. To be a lodger was a status of married men only in very young years. Later most of them acquired their own house. Permanent lodgers are very rare in Saxony. In the 19th century they are more and more common, but do not exceed 3% of all families where the husband is 40 year old, even not in mountainous regions.

#### B. Urban Population

1. Craftsmen
2. Small tradesmen (*Selbständige Kleingewerbetreibende*)
3. Peasants as citizen
4. Proletariat
5. Upper stratum (*Besitz- und Bildungsbürgertum*)
6. Clericals ("*besitzlose Intellektuelle*")
7. Nobility

Because marriages among the offspring of urban craftsmen and small businessmen and proprietors were very common, in most tables the two categories could be added together with the peasants as citizens, who were always very few in or around Saxony towns. In small towns, some craftsmen may belong to the upper stratum, but this is not the usual case. However, the classification into the categories of craftsmen, tradesmen, and upper stratum, was not always unequivocal, because of the shortage of information about actual wealth and power especially in the 16th and 17th centuries. A conse-

**Table 8**

Social background (in %) of the urban proletariat, including the inhabitants of urbanizing villages: Saxony (without Upper Lusatia) 1840-1870.

|                                                                     | 1840 | 1870 | 1840 | 1870 |
|---------------------------------------------------------------------|------|------|------|------|
| Urban proletarians and cottars in urbanizing villages, respectively | 41   | 26   | 43   | 26   |
| Small tradesmen                                                     | 5    | 5    | 12   | 2    |
| Peasants and smallholders                                           | 4    | 4    | 3    | 2    |
| Craftsmen                                                           | 14   | 19   | 11   | 18   |
| Clericals                                                           | 2    | 2    | 2    | 2    |
| intermediate sum                                                    | 66   | 56   | 71   | 51   |
| <u>in more remote villages</u>                                      |      |      |      |      |
| Peasants                                                            | 4    | 7    | 3    | 9    |
| Smallholders                                                        | 9    | 3    | 3    | 2    |
| Rural craftsmen                                                     | 9    | 13   | 11   | 13   |
| Cottars and other unskilled labor                                   | 19   | 21   | 11   | 23   |
| Clericals                                                           | 0    | 1    | 0    | 1    |
|                                                                     | 100  | 100  | 100  | 100  |
| n                                                                   | 61   | 129  | 35   | 82   |

quence could be a slight overrepresentation of well-to-do-families in the period before 1650, since for such families the sources are already better and more detailed. On the contrary, it was difficult to fill the quota of the proletarians, who had fewer surviving children and because of that are under-represented in unselected pedigree files before 1800.

### **Social Mobility and the Origin of the Rural Proletariat**

Because in Saxony the partition of family-sized farms was forbidden by law, the number of such farms remained nearly the same during the whole period investigated and offers an unique opportunity to analyze the social fate of the surplus population of these farms.

The growing number of surviving children of peasants (see Table 3, last row) had the inevitable consequence that a growing percentage were downwardly mobile. From 1585 to 1780 the absolute number of smallholders and their families rose from 21,000 to 110,000, reaching its maximum about 1810 with 113,000 and then declining to 88,000 in 1870. The downward mobility of peasant's children into smallholder positions reflects this trend fairly.

Also, and always growing, was the absolute number of rural craftsmen: From 5 per 1,000 rural inhabitants in 1565 up to 55 in 1870. During the three centuries in each generation (see the detailed tables in Weiss 1991) about a third of all smallholders and between 8% (1750; 1870), and about 20% of all rural craftsmen and their wives, were sons and daughters of peasants. The percentage of rural craftsmen who where sons and daughters of smallholders was very similar.

The cottars and unskilled lodgers never reproduced more than about 50% (see Table 4), the rural craftsmen never more than 55%. Because there was often no social distance between a weaver (classified as a craftsman) and a handworker (classified as a cottar), and both, judged from the tax lists, occupied in cottages of low value, the intermarriage rate between craftsmen and cottars was always between 15 and 30%, but in both directions without any substantial surplus at any time. From statistical facts we can and we must conclude that the

rural proletariat of Saxony was the surplus offspring of the handholding peasantry, either of the first generation or of the second and following generations, mediated by smallholders, who in their turn also had a surplus but lower than that of full peasants. Tilly's hypothesis is not supported by any fact of social mobility and nothing is more than a neo-Marxist illusion.

From 1756 to 1773 the Saxony state underwent a deep political and demographical crisis, culminating in the famine of 1772 where in the mountainous regions about a tenth of all cottars starved to death. Therefore, the reduction of the proportional share of cottars from 1750 to 1780 (see last line below) is not a byproduct of sampling but a real phenomenon. (Interestingly, the percentage of rural craftsmen, always highly correlated with the percentage of cottars, was not affected by this famine to such an extent. The cottars were poorer than the craftsmen.)

Already by the middle of the 16th century in the 4 villages of the parish Markersbach in the Erzgebirge in Saxony, nearly half of the population were day laborers and craftsmen dwelling in cottages, the other half peasants and non-agrarian upper stratum. During 1547-1791, in the first marriage of proletarian families 4.8 children were born, of which two third died before reaching the age of marriage and only 1.6 actually married (Weiss 1981). In contrast, in non-proletarian families 6.8 children were born, of which half of them, i.e. 3.4 married. (Where the father-in-law was also a landholding peasant, even 7.6 children were born.) In this parish, in 83% of proletarian families the father or mother or both died before the mother was 45 years old, i.e. the children became half-orphans or orphans before they themselves reached the age of marriage. Because most of the relatives of such children were also poor, their chance of surviving a famine such as that of 1772 was very small. Fathers often died as young as the mothers, in accidents during the work at the hammers, in the ironworks, and in mines, or as foresters. The mothers were poorly fed and consequently of poor health, hence their overall fertility was lower in comparison with peasant's wives, who married on an

average one year earlier. Only in the age cohort from 25-29 was the fertility rate equal. In all other cohorts, proletarian's wives gave birth to fewer children.

Because we have no representative sample based on family reconstitution all over Saxony we have to avoid a final conclusion. It seems by no means impossible that there were periods of prosperity where the proletarian cottars were able to produce a slight population surplus, at least locally (for example, in the weaver villages around Zwickau after 1775). Such periods, which need a more thorough analysis, are from 1660 to 1750 and generally after 1780. Of course, in 1840 and the following decades, the rural proletarians produced a substantial surplus (but not higher than that of the peasant farmers).

The chances of social mobility are interconnected with the demographic surplus of the respective strata. In the 17th century the slight surplus of the peasants did not mean that each farm had a male heir. Therefore, sons of cottars had a small, but real chance, of becoming the proprietor of a farm by diligence or marriage. In the 19th century, the surplus of peasants was extremely high and consequently their downward mobil pressure so strong that practically no chance for a cottar's son was left to be upwardly mobile in such a way (compare Table 5). The result was a dramatic increase of absolute numbers of rural cottars and concurrently an ever-increasing mobility toward the towns and their surroundings. The children of cottars had little to offer on the marriage market: In a very detailed study, combining family reconstitution with all other available sources, Herzog (1984) showed that in Lampertswalde, again a village in northern Saxony during 1700-1799, 4.6 children (arithmetical mean per marriage) inherited a total of 612 florins, which translates to 133 fl. per child. Of these, 5.4 children of millers inherited 2165 fl., i.e. 401 fl. per child while 3.3 children of cottars inherited 77 florins, per child only 23 fl.

The period from 1750 to 1815 in Saxony has some characteristics of proto-industrialization (Mendels 1972). For example, the share of rural population in the total population rose

from 59% in 1750 to 64% in 1815. However, the links between the prosperity of a social stratum and its interdependence with all other strata, resulting in a determined demographic and mobility behavior and transitions, need further and deeper elucidation.

### **The Origins of the Urban Proletariat**

Concerning the origin of the 19th century urban proletariat, another neo-Marxist legend has achieved special place in public esteem. Hartmut Zwahr (1978), who had analyzed in Leipzig a kind of roll for citizens with restricted rights (*Schutzverwandte*) from 1827 to 1867, came to the conclusion that the social fate of the proletariat is determined by an increasing tendency toward an "hereditary proletariat", i.e. a proletariat whose fathers were already proletarians. Zwahr understands this tendency as a prerequisite of the teleological mission of the proletariat in a Marxist sense. His deductions are here of no interest. What can be tested, however, is the empirical background of his hypothesis concerning the rise of an hereditary proletariat. Zwahr, adding the urban and rural proletarian fathers and always supporting his arguments by a wealth of empirical data, found that 43% of the proletarians were of non-proletarian background. Adjusting for some differences in classification of occupation and strata, this differs less than 5% from our data (compare Tables 6 and 8) and presents no true difference at all. What we must doubt, however, is the increasing percentage of proletarian parentage of increasing generations of proletarians, at least during the period investigated.

In a period of economic growth and prosperity, where a given occupation (or social stratum) is also growing in absolute numbers, the relative share of those whose social origin is in the same occupation is declining and the relative share of those who are newcomers to the occupation is rising. This holds for rural smallholders and cottars about 1690 as well as for several urban trades, such as weavers about 1690, for tailors about 1720 and again about 1840, for bakers and butchers about 1840, and in villages and towns for stocking-

weavers about 1810. In these cases there are more new jobs than children of those who are already in the trade. Vice versa, a crisis in a trade is characterized by the opposite trend. About 1790, during the general crisis in Saxony towns, clothiers, bakers and butchers, a record-high of more than 90% self-reproduction was recorded. On the contrary, during the boom about 1870 for shoemakers and tailors, both with easy access for newcomers, the percentage drops below 30%.

There is no reason to believe that the general trend should be different with respect to the social background of proletarians (see Table 6). Also before 1800, the self-reproduction of urban proletarians never exceeded 50%. Their high mortality had always to be balanced by newcomers from the countryside, mostly of non-proletarian background. After 1815, the numbers of urban proletarians began to rise with rapidity and this had to be more and more people of non-proletarian origin.

In towns there are no marriages between the extremes of social stratification; upper and lower, i.e. proletarian stratum do not intermingle. There is only a certain downward mobility because of cases of illegitimacy or low mental health. The middle stratum, the craftsmen and small businessmen and salesmen, which contribute always more than a half of the total urban population, intermarry with both upper and lower stratum, but only to a small degree. Up until the year 1800 from 70% to 80% of all craftsmen worked in the same occupation as their fathers, although their wives are only to 20% of the same origin. For the daughter of the middle stratum the marriage market was the whole occupational stratum, and downward mobility into the proletariat was not uncommon.

As a result of the industrial revolution the entire population became mobile to an extent never known before (see Table 6). In 1780 still 53% of all craftsmen worked in their town of birth, but by 1870 only 17% did so. While before 1700 only 2-3% of all inhabitants of larger towns migrated from more than 20 km distant, the respective percentages are in 1810 9%, in 1840 11%, and in 1870 19%. Another measure of the growing dynamics of Saxony economy and society, which in 1890 ranked even ahead of England and Belgium, is the

in 1840 11%, and in 1870 19%. Another measure of the growing dynamics of Saxony economy and society, which in 1890 ranked even ahead of England and Belgium, is the growing migration of the hierarchy of central places: Before 1700 less than 10% of all inhabitants of the 14 largest Saxony towns came from smaller towns, in the 18th century about 15%, about 1840 21%, about 1870 24%.

A picture of the origins of the proletariat, the inhabitants of the urbanizing villages is incomplete. Beginning in 1890, a large number of villages become incorporated, and a dozen villages achieved the status of a town. Before 1800 the population balance of these suburban villages against their more agrarian neighbors was even negative (see Table 7). The market control of the nearby towns rendered the development of trade and business more difficult and, consequently, the demographic surplus of these villages had to move out, not only to the adjacent towns, but also into more remote villages with better economic conditions. After 1815 the suburban villages began to grow into true towns or even, around Leipzig and Dresden, to become part of the nearby city.

There is a general decrease of proletarian percentage of urban proletarians from 1840 to 1870. In 1840, if we add urban (41%) and rural (19%) proletarian background (see Table B), the sum is 60%. In 1870, 26% urban and 21% rural proletarian parentage add up to 47%. The corresponding sums of the larger towns are 54% in 1840 and 49% in 1870. In their suburbs the trend is even stronger: 56% in 1840 (among this 6% sons of cottars from remote villages) against 48% in 1870 (among this 27% sons of cottars from remote villages).

At some specific time there must have been a trend reversal, and Zwahr's hypothesis should be true in a later period. Whether this was about 1880 or about 1900, neither our empirical study (terminating with the year 1870) nor contemporary statistics can provide a clue. Influx into the cities remained on a high level up to 1914, and further empirical statistics are needed.

Our study has addressed important questions of social, economic and demographic history on the basis of territory-

wide representative sampling extending over a range of more than 300 years and 10 generations. Far from perfect, the method holds both promise and stimulates further questions. Stratified sampling on the basis of representative data from family reconstitution, exhausting the totality of relevant sources, should be the ideal. In this sense our study should be understood as a small step toward a statistical thermodynamics of human society, where the individuals are the atoms and their multiplying and shuffling in social and geographical space represents the very essence of the dynamic of history.

### Summary

Saxony is the only large European territory which provides reliable data of the absolute increase of the different social strata in modern time. From genealogical files, five representative samples were drawn, each covering at least a 50-years-period and covering some 11,000 married couples. On this 10-generation data basis the social and spatial mobility of the main social strata could be studied.

The special target of this contribution are two neo-Marxist legends on the social and demographic origins of the proletariat until 1870, which claimed a disproportionate natural increase of proletarians and the constitution of an hereditary proletariat. The data, however, tell another story and show that rural and urban proletarians are formed from the socially downwardly mobile sons and daughters and grandchildren of peasants.

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# **RETROVIRUSES, GENETIC LESIONING AND MENTAL DEFICIENCY AMONG BLACKS: A CAUSAL HYPOTHESIS**

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Among the most vexing problems in the study of mental deficiency is that posed by the durable findings that blacks score on the average one standard deviation below other populations in measured IQ (Jencks et al. 1972; Jensen 1985). Recent developments in fields outside Differential Psychology may now provide a possible explanation for this finding.

These developments suggest that the low average IQ scores observed in blacks may be in part the result of genetic lesioning accumulated over many generations from protracted exposure to retroviral infections endemic to Sub-Saharan Africa, and that living for a very long time out of Africa may account, in part, for the superior test performance of other populations.

Sub-Saharan Africa is very rich in retroviruses and in the primates which provide these viruses an hospitable reservoir (Todaro 1980; Gallo 1987; Essex and Kanki 1988; Weiss 1988; Allan, et al. 1990). Retroviruses are highly variable; new variants are frequently formed (Roberts, Babenek and Kunkel 1988). Retroviruses may move from species to species, subject to subject, and most importantly for the argument at hand, may in the DNA provirus form become integrated into the germ line genome of the host and be passed on for generations. Such vertically transmitted proviruses will be present in all cells – including brain cells – of the descendants (Todaro 1980; White and Fenner 1986; Varmus 1988; Larsson, Kato and Cohen 1989; Shih Misra and Rush 1989).

The human genome contains a large number of proviruses, or fragments thereof, accumulated from retroviral infections throughout the history of our species (Varmus 87, 88; Larsson, Kato and Cohen 1989; Shih, Misra and Rush 1989).

"The DNA of humans contains perhaps thousands of endogenous retroviruses (ERVs) or retrovirus-like sequences which are detectable by their homology to retroviruses of other vertebrates" (Larsson, Kato and Cohen 1989, p. 115).

Although much of the proviral genetic material in the genome may be silent and of no importance, some of it may be harmful and constitute genetic lesioning. This may occur in one of two ways: First, a provirus integrated into the genome may act as an insertional mutation, suppressing or enhancing the expression of adjacent host genes, thereby distorting cellular function. Second, genes within the provirus itself may come to be expressed in the cell and the products of this expression may be harmful to the host organism (Varmus, Quintrell, and Ortiz 1981; Varmus, 87, 88; Larsson, Kato and Cohen 1989; Shih, Misra and Rush 1989)

It has been estimated that nearly two thirds of the genes which comprise the mammalian genome are dedicated to the development, structure and operation of the brain. Bloom, in his study of genetic expression in various organs (in rats) concluded, "...the main major insight from those studies for the present discourse is the recognition that more than 60% of the genome may be selectively expressed in the brain, amounting to no less than 30,000 'brain specific' proteins, including – one must conclude – more than just a few new neuropeptides and other messenger molecules" (Bloom 1986, p. 191). It would be unlikely that a smaller proportion of the human genome would be dedicated to the formation and control of the brain.

Although random in their location throughout the genome, proviruses, acting as insertional mutations, would, on the basis of chance alone, be expected to intercept and distort the expression of many brain-related genes. Although the contribution to IQ would greatly vary among the intercepted genes, degradation of brain function should on average be proportional to the number of insertional mutations in the genome. And the number of insertional mutations in the genome should in turn correlate with the loading of proviruses in the genome. A population carrying a substantially greater burden of proviruses in its collective genome might be

expected to exhibit, on the average, sub-optimal brain function presenting as depressed IQ. It may be noted in passing that the high incidence of cancer in blacks is not inconsistent with an elevated load of insertional mutations as hypothesized here (Baquet et al. 1986).

We turn from consideration of the probabilistic interaction of insertional mutations and brain-related genes to contemplate proviruses as a possible source of harmful gene products. In this connection it is noteworthy that a particular glycoprotein, gp120 – which is an envelope component of the Human Immunodeficiency Virus (HIV) and presumably of its evolutionary predecessors – has been identified as a potent neurotoxin and implicated as a cause of brain damage in HIV-infected neonates. Minute quantities of gp120 excreted from infected cells may act to kill developing neurons, particularly in the hippocampus. "Gp120 secreted from infected subcortical macrophages may diffuse to act at a distance causing cortical abnormalities without obvious cortical infection, particularly given the small concentrations of gp120 which cause neuronal death. Our experimental observations were made in a developing neuronal system; the neuronal vulnerability to the toxic effects of gp120 may therefore be particularly relevant to infants with AIDS, where the neurological effects are so severe" (Brenneman et al. 1988, p. 639). If proviruses containing the gene coding for gp120 were present in the genome and if gp120 were to be expressed and excreted, then the effect upon the developing brain of the infant in utero might not differ in principle, although it might in magnitude, from that of gp120 released in active infection. Inasmuch as HIV and, presumably, its evolutionary predecessors, in rich variety, have their origin in Sub-Saharan Africa and gp120 is potentially so hazardous to the developing brain, the black population should be studied for proviral gp120 genes and their possible expression. There are many other genes in the proviruses which may be found in humans. In the long run, they should all be screened for possible expression and for possible distorting effects upon brain development.

Sub-Saharan Africa is rich in retroviruses and rich in primates, including *H. sapiens* which host them (Todaro 1980; Gallo 1987; Essex and Kanki 1988). And it is apparent that many, if not most, proviruses in the human genome are of primate origin (Shih, Misra and Rush 1989). *H. Sapiens* is thought to have emerged in Sub-Saharan Africa some 200,000 years ago. The ancestors of the non-negro populations are thought to have left that region about half-way through this period, while blacks have resided there for virtually this entire epoch (Stringer and Andrews 1988). Although part of the burden of proviruses in the human genome may predate the emergence of the species, much of this burden may have been acquired more recently in time. It is estimated that non-negro populations have spent the last 100,000 years away from central Africa's rich reservoir of retroviruses while blacks have lived in protracted and intimate contact with this potent biohazard to the present. (The slave trade, which brought many blacks out of Africa, is trivially recent in this context.) It is a plausible conjecture that the black population may therefore have sustained a substantially greater cumulative risk of exposure to retroviral infections and consequent genetic lesioning than other populations during the history of *H. sapiens*.

How might the proviral hypothesis for black mental deficiency be tested? The means would appear to be at hand. If we hypothesize black mental deficiency to be caused by a swarm of insertional mutations intercepting brain-dedicated genes, it would be expected that the genome of blacks, on average, must carry a much larger burden of proviruses than that of other populations. Assessment of the suggested group differences in proviral burden might be approached as follows. Although there is great variety in retroviruses and thus in proviruses, there are genes – those which code for the enzymes integrase and reverse transcriptase – which are necessarily common to them all. A measure of the total number of reverse transcriptase genes in a genome should serve as an index of the burden of proviruses.

The polymerase chain reaction (PCR) in conjunction with Southern blotting has been used as a probe to explore the variety and origins of reverse transcriptase genes (virtually all proviral are probably primate in origin) in samples of human genetic material (Shih, Misra and Rush 1989). It would appear possible to adapt these methods to make rough quantitative estimates of the reverse transcriptase genes and thus of the burden of proviruses in individuals and groups. (See also Kwok, Kellogg and Sinsky 1989) If there were no major differences in the mean burden of proviruses between blacks and other populations, the insertional mutation sub-hypothesis could not be sustained.

The sub-hypothesis that mental deficiency in blacks may be caused by the presence in the genome of proviruses themselves containing harmful genes, and subsequent expression of disruptive gene products such as gp120 could be tested by the same methodology. The PCR would appear to be a suitable probe to detect specific suspect genes such as that coding for gp120 (Shih, Misra and Rush 1989). The process would have to be repeated for each suspect proviral gene and these may be numerous. If such genes were not present in significantly greater numbers in blacks nor expressed to a greater degree in the retarded, than this sub-hypothesis would stand refuted.

The author does not wish to neglect the possibility that proviruses in the genome derived from past retroviral infections might be a factor in as yet undefined mental deficiency or learning disabilities seen in other than black populations. The above hypothetical but researchable considerations may together provide a useful stratagem for exploring hitherto uninvestigated aspects of the tragic phenomenon of mental deficiency.

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## WHAT "EUGENICS REVISITED" NEEDS

A Comment on "Eugenics Revisited" by Dr. William J. Andrews in  
*The Mankind Quarterly*, Volume 30, No. 3.

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The field of eugenics is greatly indebted to Dr. Andrews for his article on *Eugenics Revisited*. The statistics models are very helpful. But I feel a certain remoteness therein from the basic issues. For example, he neglects the fact that we now have two concepts of intelligence,  $g_t$  and  $g_c$ , and that virtually all the data to date have been only on crystallized intelligence measures with a heritability of about 0.4 compared to .80 for fluid intelligence measurable by culture-fair intelligence tests. (Cattell, 1982)

The whole basis of evidence on intelligence and family size rests on two adequate studies – my English urban and rural research of 1936 and Vining's American study of 1983. The simple calculations in both cases agree on a 1 point of IQ fall per generation. The English study remains to this day the only adequate survey sample based on a culture fair intelligence test. By retesting the areas after 15 years I found that actually there was no change in intelligence and the study of Higgins, Reed & Reed (1962) in the meantime, though flawed by being locally peculiar, agrees.

I called on my 1936 book for additional evidence on (1) the IQ frequency distribution of unmarried persons and childless "families," and (2) the death rate, before the reproduction age, according to intelligence. No sociologist has ventured to investigate these, but I concluded that their effects were probably enough to offset the genetic effect. Indeed, Flynn's (1985) recent findings, though based on traditional,  $g_c$ , intelligence measures known to be susceptible to environment, Cattell (1982) show an actual *increase* in mean intelligence level. At a common observation level I am convinced of a negative

know (1936) that about 60% of people do not reproduce. In the English rural districts this section seems to be the less generally competent individuals.

These two relationships are difficult to investigate. A follow up record for say 30 years on first grade children, adequately tested, might give us at least some light on the death rate relationship. Similar data followed up for marriage frequencies would fill in the second element in the calculation. These are the things we need to emphasize in eugenics revisited today. It is indeed incredible, in view of the suspicion of the cause of decline of past civilizations, that no political leader has spoken on this issue, and that no ethical growth, such as Andrews calls for, has been encouraged by the arbiters of ethics, in religious and other sources (see Beyondism, 1987).

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## CYRIL BURT'S INVARIANT KINSHIP CORRELATIONS: ANOTHER LOOK

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In 1974, three years after his death at the age of 88, Sir Cyril Burt was charged by Leon Kamin (Kamin 1974) with faking the data for his studies of twins. For more than four decades of the twentieth century Burt had been the preeminent psychologist in Great Britain. He was knighted in 1946 and received the Thorndike Prize in 1971. He was the author of over 600 books, articles, papers and reviews none of which had been called a fake or fraudulent until Kamin's claim was made public on October 24, 1976, by Oliver Gillie, a medical correspondent for the *Sunday Times* of London. (Gillie 1976)

The question has been asked why did Burt "cook" his twin data? The accusation made absolutely no sense to anyone familiar with Burt's work or knowledgeable of psychometrics. It was not Burt's invariant kinship correlations, his "missing ladies", his divorce, or the myriad other suggested personal faults that angered Kamin, Gillie, Gould, the Clarks, Tizard and a few other critics. It was Burt's steadfast belief that: "The main steps in the argument may be epitomized as follows:

1. Evidence from different branches of psychology leads to the notion of a mental capacity that is (i) cognitive, (ii) general, (iii) innate.
2. Each of these three characteristics has been amply verified by statistical research.
3. As the history of the word shows, intelligence was a technical term put forward to designate a technical concept: and the meaning given it, implicitly or explicitly, by leading authorities from Cicero and the scholastics of Spencer, Galton, Binet, suggests that it furnishes the most convenient name for the concept thus reached." (Burt 1955)

While collecting data for the Georgia Twin Study in the late 60s I sent some of my preliminary data to Burt. In December, 1966, I received a handwritten acknowledgment from him thanking me for the reprint and requesting to be kept on the mailing list for "the same or kindred" problems. Such a reply to an unsolicited paper from an unknown psychologist 3,000 miles away is not the behavior of an aging psychologist suffering from a "psychological disturbance" and from "marginal paranoia".

It is not my purpose here to vindicate Cyril Burt which was done so ably and completely by Robert Joynton in *The Burt Affair* (Joynton, 1989), but to replicate with new twin data one of Burt's tables of kinship correlations. The Georgia Twin Study was completed at the height of the feeding frenzy by the media and Kamin et al on published works of Burt and his assistants. With the papers headlining "The Fraud Reopened the Debate about Race and Intelligence" (Gillie, 1976), my book *Twins: Black and White* (Osborne, 1980) stood little chance with publishers even though it contained all the original data generated from the examination of 496 pairs of black and white twins.

Thanks to the tireless efforts of Robert Joynton, Sir Cyril Burt is no longer a pariah. Burt's tables that were called fraudulent by Oliver Gillie and his fellow men of the left may now be reexamined with a new and larger group of twins, including both blacks and whites. *Twins: Black and White* (Osborne, 1980) was accepted for publication by a large publisher in Europe. Upon the advice of one of the major players in Joynton's *The Burt Affair*, at the last minute the publisher reneged. A foundation grant in 1980 made it possible to publish the book, which comprises the test scores, biometric data and personality profiles obtained from 125 different tests of 123 black and 373 white twin pairs ranging in age from 12 to 20. The pattern of mean I.Q. difference between the two races is remarkably consistent at all age levels. White IQs are approximately 15 points greater than those for blacks. All raw data including psychological, biometric, and personality measurements are reproduced in the appendix and are available on tape.

**Table 1 (Burt 1966)\***  
Correlations Between Tests of Mental, Scholastic and Physical Measurements

| Burt's Kinship Correlations |                                     |                             |                                     |                                 |                         |                                      |
|-----------------------------|-------------------------------------|-----------------------------|-------------------------------------|---------------------------------|-------------------------|--------------------------------------|
|                             | MZ Twins<br>Reared<br>to-<br>gether | MZ Twins<br>Reared<br>Apart | DZ Twins<br>Reared<br>to-<br>gether | Sibs<br>Reared<br>to-<br>gether | Sibs<br>Reared<br>Apart | Unrelated<br>Reared<br>to-<br>gether |
| Number of Pairs             | 95                                  | 53                          | 127                                 | 264                             | 151                     | 136                                  |
| Mental (Intelligence)       |                                     |                             |                                     |                                 |                         |                                      |
| Intelligence:               |                                     |                             |                                     |                                 |                         |                                      |
| Group Test                  | .944                                | .771                        | .552                                | .545                            | .412                    | .281                                 |
| Individual Test             | .918                                | .863                        | .527                                | .498                            | .423                    | .252                                 |
| Final Assessment            | .925                                | .874                        | .453                                | .531                            | .438                    | .267                                 |
| Scholastic                  |                                     |                             |                                     |                                 |                         |                                      |
| General Attainments         | .983                                | .623                        | .831                                | .803                            | .526                    | .537                                 |
| Reading etc.(Spelling)      | .951                                | .597                        | .919                                | .842                            | .490                    | .545                                 |
| Arithmetic                  | .862                                | .705                        | .748                                | .754                            | .563                    | .478                                 |
| Physical                    |                                     |                             |                                     |                                 |                         |                                      |
| Height                      | .962                                | .943                        | .472                                | .501                            | .536                    | -.069                                |
| Weight                      | .929                                | .884                        | .586                                | .568                            | .427                    | .243                                 |
| Head Length                 | .961                                | .958                        | .495                                | .481                            | .506                    | .110                                 |
| Head Breadth                | .977                                | .960                        | .510                                | .492                            | .082                    | .541                                 |
| Eye Color                   | 1.000                               | 1.000                       | .516                                | .554                            | .524                    | .104                                 |

\*Burt, C. L. British Journal of Psychology 57: 137-153

Burt's table of disputed kinship correlations appeared in Burt (1966) and is reproduced in Joynson as Table 6.3. For readers who do not have Burt's original paper handy the table is given below as Table 1. From Burt's text it is possible to determine the number of cases for each twin group. These are shown in Table 1 also.

From the Georgia Twin Study measures of intelligence, school achievement and physical characteristics were available for 238 pairs of twins. Although the test names are slightly different they represent the significant mental, educational and physical measures employed by Burt. A skeleton outline of the Burt table row and column headings can be filled in with data from the Georgia Twin Study. These are new computations from data collected in the late 60s and 70s and published in *Twins: Black and White* (Osborne 1980).

As explained in detail in Osborne (1980) all twins did not take all physical and mental measurements. The twins participating in the study were volunteers and were required to have parental and school permission to participate. All two hundred thirty-eight pairs of twins tested in Georgia completed all mental and educational tests, but only 190 pairs had the same physical measurements, head length, head breadth, height and weight, made by Burt. In the Georgia Study eye color was determined from the twins' self-reports. The method proved to be so unreliable that eye color was dropped from the Georgia database. Data from these 82 pairs of MZ twins reared together, 61 pairs of DZ twins reared together and 47 pairs of unlike-sex twins will be used to prepare a new table, Table 2, modeled after Burt's Table 1. The new table has three entries under Intelligence as did Burt's Table 1, the difference being our three tests are all group intelligence tests. Burt also reported the results of three intelligence tests, the Group Test IQ, Individual Test and Final Assessment.

The scholastic entries in both tables are much the same with reading, spelling and arithmetic being represented. The five physical measures are identical in both tables except eye color is not reported in the Georgia table. Also absent from the Georgia table is an entry for twins reared apart.

**Table 1 (Burt 1966)\***  
**Correlations for Mental, Educational and Physical Characteristics**  
**From Osborne, 1980: Twin Pairs Reared Together**

|                     | Number of Pairs |  | 34   | 48   | 82   | 29   | 32   | 61   | 22   | 25    | 47   |
|---------------------|-----------------|--|------|------|------|------|------|------|------|-------|------|
|                     |                 |  | MZ-W | MZ-B | MZ-T | DZ-W | DZ-B | DZ-T | UL-W | UL-B  | UL-T |
| Intelligence        |                 |  |      |      |      |      |      |      |      |       |      |
| TOTIQB (Osb.)       |                 |  | .891 | .905 | .935 | .675 | .584 | .737 | .719 | .295  | .656 |
| PMATOT (AV.)        |                 |  | .753 | .707 | .819 | .512 | .510 | .617 | .660 | .563  | .686 |
| CATTELL (A+B AV.)   |                 |  | .813 | .717 | .829 | .396 | .593 | .602 | .508 | .416  | .524 |
| Educational         |                 |  |      |      |      |      |      |      |      |       |      |
| Arithmetic          |                 |  | .763 | .863 | .838 | .592 | .736 | .682 | .657 | .128  | .468 |
| Spelling            |                 |  | .884 | .781 | .823 | .710 | .663 | .712 | .680 | .167  | .469 |
| Read. (Vocab. Heim) |                 |  | .885 | .728 | .861 | .772 | .593 | .745 | .784 | .319  | .678 |
| Physical            |                 |  |      |      |      |      |      |      |      |       |      |
| Height              |                 |  | .973 | .945 | .964 | .720 | .692 | .705 | .022 | .001  | .047 |
| Weight              |                 |  | .937 | .949 | .945 | .635 | .462 | .533 | .180 | -.238 | .109 |
| Head length         |                 |  | .811 | .808 | .809 | .599 | .557 | .570 | .312 | .034  | .156 |
| Head breadth        |                 |  | .682 | .599 | .612 | .707 | .661 | .682 | .122 | .462  | .360 |

All Osborne twins were living at home with parents or guardians and attending public school at the time the study was conducted. Since the new data include both black and white twins the two groups are listed in separate columns in our Table 2 and a third column shows values for the combined group. The age range for the Georgia Twins is from 12 to 18 with a mean of 14.97 for black and 15.44 for white twins. Mean IQ for whites is 106, for blacks 94. There were 82 MZ pairs, 34 white and 48 black. There were 61 pairs of DZ twins of whom 29 were white and 32 black. Of the 47 pairs of unlike twins 22 pairs were white and 25 pairs black.

Considering the two subject pools represented in Tables 1 and 2 the correlations are remarkably similar. The Burt subjects are most likely all white with an age range from school-age to adulthood. The Osborne group is about 50-50 black and white with a mean age of about 15. The Burt twins were tested in England before 1966. The Georgia twins were tested in the Southeastern U. S. in the late 60s and 70s. The test batteries were more alike than were the environmental backgrounds of the subjects. Group intelligence tests were used in both studies. In the Osborne study the Basic Battery (described in Osborne, 1980), the Primary Mental Abilities Test and Cattell's Culture Free Test were used. Part scores were averaged to yield total scores for each of three group mental ability tests. In the Burt study the three mental tests were designated: Group Test, Individual Test and Final Assessment. The achievement tests represented in the two tables were of different format but of almost identical content: arithmetic, spelling, and reading (vocabulary). The only difference in the physical battery is the absence of a test for eye color in the Georgia twins.

The correlations in the two tables show a high degree of similarity in all three categories, Intelligence, Scholastic, and Physical. For the three IQs given in the Burt study the *rs* for MZs reared together were: Group test .944, Individual Test .918 and for Final Assessment .925. The three IQs shown for the Georgia MZ twins were: .935 for the TotIQB, .819 for the PMAT average and .829 for the Cattell average. For DZs the Georgia twin pairs were more alike than the DZs examined by

Burt. Georgia  $r$ s were: TotIQB=.737, PMAT=.617, and Cattell=.602. The DZ  $r$ s in Burt's table were: Group Test=.552, Individual Test=.527 and Final Assessment=.453. The three tests under the Scholastic heading show about the same pattern found for Intelligence. For Georgia MZ twins the  $r$  for the Simple Arithmetic Test is .838; for the Burt MZ twins reared together the  $r$  for arithmetic achievement is .862. Burt found the  $r$ s for spelling and reading somewhat higher than were found for those tests in the Osborne group. For MZ twins height and weight measures in the Physical Battery are in the .90s for both the Georgia and the Burt twins. DZ  $r$ s for both samples also are in the range of  $r$ s that would be predicted by the hereditarian hypothesis. The MZ  $r$ s for both head length and head breadth of the Burt twins are greater than those for the corresponding Georgia twins. The reverse is true for the DZ pairs. From the Burt data it is not clear whether the large group of sibs reared together (264) are of the same sex. The correlations for physical measures would indicate same sex sibs. The intelligence and scholastic  $r$ s for the 47 pairs of opposite-sex twins of the Osborne data compare favorably with those of sibs reared together from Burt's table.

Tables 1 and 2 are not perfectly congruent but the pattern of correlation coefficients for MZ and DZ twins in both tables supports the hereditarian hypothesis for mental, scholastic and physical characteristics. A factor that makes the congruence of the two tables even more remarkable is the fact approximately 50 per cent of the twins from the U.S.A. are black, suggesting the hereditarian hypothesis for mental, scholastic and physical characteristics applies equally well to blacks and whites.

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*BOOK REVIEW ARTICLE*

**DEBRIDING PSYCHOANALYTICAL THEORY  
OF FREUDIAN ERROR**

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**The Decline and Fall of the Freudian Empire**

*Hans J. Eysenck*

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I am glad to have been asked to review Dr. Eysenck's book because I have had a long career as a psychoanalyst and psychiatrist, and have also undergone a long process of evolution in my thinking about psychoanalytic principles, better seen as applied organismic psychology. In this review I contrast Dr. Eysenck's criticisms to my own thoughts which often take exception to parts of psychoanalytic dogma. The results hopefully will be to put the value of psychodynamic principles in perspective for theorists and therapists of the modern era.

Dr. Eysenck presents any reviewer with a scabrous task: his bitter diatribe, innuendo and outright insulting remarks (cf. we're prostitutes, we have our camp-followers, and we're liars) parallel churlish statements that we are entertainers; we get no positive therapeutic results, we're fraudulent, and patients who can't make friends pay us psychiatrists like a man pays a prostitute.

In spite of his invective egregious assertions, we must not ignore an invaluable service he performs for all of us imbued with a dynamic, organismic (including a psychoanalytic) approach to human (as contrasted to dog) psychology. Anyone of this human persuasion with an open mind, or who needs his or her mind opened, must read this book. Fortunately,

regardless of the invective, the author hits upon vital issues which if left unattended will not only hasten the demise of worthwhile psychoanalytic principles, but also might tragically delegate to the attic priceless contributions to dynamic psychology and insights which aptly apply to our understanding of people and our therapeutic activities with patients.

I feel that this is a "must" book for all psychiatrists who are not completely ossified – including even the rigidly Classical Psychoanalysts who follow the initial, unaltered Freudian precepts which Dr. Eysenck's chooses to quote to make his denunciation more plausible. Dr. Eysenck's terse observations can be extremely useful in debriding the sores of the body of psychoanalytic doctrine.

At some point of maximum benefit, the debriding organism needs to be debrided. A master key to Dr. Eysenck's biased thinking is his unilateral commitment to behavior modification. His basic orientation to life and to psychotherapy is presented concisely in this quotation (pp. 80-81):

"Even now, thirty years after the article in which I pointed out the lack of evidence for therapeutic effectiveness, and some five hundred extensive investigations later, the conclusion must still be that there is no substantial evidence that psychoanalysis or psychotherapy have any positive effect on the course of neurotic disorders, over and above what is contributed by meaningless placebo treatment ... Are there, then, any alternative theories to the Freudian, and do they give rise to types of therapy which can be shown to be objectively more effective than Freudian psychoanalysis and psychotherapy?

"The answer to this is certainly yes. In my book *You and Neurosis* I have already dealt with the promise held out by behavior therapy, and here will draw only a hasty outline of the contents of the theory and the evidence about its effectiveness ... It was Pavlov who introduced the concept of conditioning and extinction, and it was J.B. Watson, the father of American behaviorism, who showed that these concepts could be introduced very successfully in accounting for the origins and for the treatment of neurotic disorders."

Naturally, this reviewer wants to know what happened to Pavlov's whole dog, and, did it wag its tail? Or did the tail wag the dog? Most educators I've known feel that at least in the hands of J.B. Watson, the tail wagged the dog, and he guaranteed an abundant supply of patients created by parents who fed infants on schedules convenient to adults, and attempted potty-training by the end of the first year.

Dr. Eysenck's book contains two hundred and thirty-three pages with an "Introduction" which contains his definition of science, remarks about Freud, and the gist of his categorizing of Freud, the would-be scientist, as 'the originator and chief representative of the hermeneutic movement.' He realizes Freud would deny this, but he calms this reviewer's feelings by stating that '[Othello, Falstaff, and Romeo] *are all individuals containing their individual truth but it is a truth which does not generalize.*' [Italics added.]

Dr. Eysenck in over twenty instances in his introduction denigrates the truth of Freudian beliefs and touts the hard-nosed behaviorist who could practically guarantee to cure the disorder [head banging, enuresis, obsessive-compulsive behavior] in a few months. Dr. Eysenck should apply the idea of equally valid individual truths to theoretical systems and allow that different theories of psychology can illuminate the same truths, each from their own perspective.

Eight chapters follow this very general introduction. We get a fascinating bird's eye view of "Freud the Man," along with quite scholarly revelations of similar findings by earlier investigators not appropriately acknowledged by Freud. We also learn or relearn, as the case may be, that many of Freud's 'cures' worked (Dr. Eysenck is inconsistent here); that many of his followers were more like members of a cult, sometimes an occult cult, and that Freud ruled over his followers in a dictatorial fashion. He 'excluded' those who 'did not wholeheartedly agree with him in every particular.' Eysenck also makes very valid points about the hero-worshipers [of Freud] who can see nothing wrong with their leader and to whom any form of criticism [and I would add deviation in technique] is sacrilege.

Dr. Eysenck points out that Freud himself gave the impression that he had no followers and was completely isolated, when in fact the historical records show that the initial reception of Freud's theories was quite different from Freud's traditional account. The *Interpretation of Dreams* was initially reviewed in at least eleven journal magazines and subject journals appearing about a year after publication.

Dr. Eysenck continues his criticism of "Freud the Man" by setting up a number of rules, all acceptable to any normal scholar as rules: but we may question some of his *conclusions*. The first rule is that we should not believe anything we see written about Freud or psychoanalysis without looking at the relevant evidence. The second rule is to the effect that we should not believe anything said by Freud and his followers about the success of psychoanalytic treatment. In connection with the enunciation of this rule, Dr. Eysenck discusses several patients presumably cured by analytic techniques but who resurfaced as being quite ill, and not cured analytically, as revealed when these famous cases were followed up. A third rule is to the effect that we should not accept claims of originality but look at the work of Freud's predecessors. He gives quite scholarly documentation of this point, and I could only say in defense that Freud, particularly in his *Interpretation of Dreams*, created a comprehensive system of dynamic psychology, which system has been greatly altered for the better, both by Freud and his immediate disciples in early years, and by innumerable psychiatrists and psychologists in more recent years.

Dr. Eysenck's fourth rule is to the effect that we must be careful about accepting alleged evidence about the correctness of Freudian theories because the evidence often proved exactly the opposite conclusions. He buttressed his arguments for this rule by showing correctly that the innumerable examples of dream interpretation scattered throughout the analytic literature, claiming to deal with repressed infantile material, show just the opposite: there is not one illustration of wish-fulfillment which meets the criterion of reference to a repressed infantile wish. Every illustration posits a wish, but

every wish is either a wish of out and out conscious reflection, or is a suppressed wish of post-infantile origin.

Most practicing psychiatrists and psychoanalysts are aware of this point with which Dr. Eysenck buttresses his rule, but we must not forget that in each individual's 'stack of experiences' the associations based on feeling-meanings ultimately go back to associations involving the same *feeling-tones* in the experiences of early years. An organism is a total functioning whole from the beginning of life. This statement does not invalidate his insistence that dreams do not relate specifically to repressed infantile material, but it emphasizes the fact that life-sustaining functions – processes – are present from the beginning, with successively greater elaborations during maturation. The first sewing machine accomplished the basic function found in the most elaborate multiple-needed, computer-controlled sewing machines of modern history.

Dr. Eysenck's fifth rule is a piece of advice, that in looking at a life history, we must not forget the obvious. He illustrates this point by referring to Freud's life history, to the many paradoxes in his behavior, and to the correlation of Freud's Messianic conviction of a mission (which provided Eysenck with a similar career as Anti-Christ), with the period where, according to some biographers, Freud was addicted to cocaine. The deification of Freud by many of his followers has been detailed in many studies besides those trying to expose the inadequacies in classical psychoanalytic theory. My insistence at this point is that exposing inadequacies, in order to preserve the tremendous insights evolved by analytic techniques, be separated out from criticisms involving the deification of Freud and the reification of metaphors.

Eysenck points out that 'in all art, there is a close relationship between the artist and the work he produced, not so in science....' This creates no problem for the reviewer, who believes that human beings with their capacity for emergent evolution can never be studied by the 'natural sciences' which seek for truths that are valid for an eternity. Our pragmatic test is the usefulness of dynamic insights into human nature which may be of value in understanding and alleviating the

painful pathologies of human beings turning to psychiatry for relief of their symptoms.

Dr. Eysenck's second chapter concerns "Psychoanalysis as a Method of Treatment." In this chapter, his claims for psychoanalytic inadequacies are as egregious as the claims of psychoanalysis, that it is the only *sure cure* for emotional diseases. He contrasts Freud's early assertions that only *psychoanalysis* could relieve patients to Freud's pessimistic view, towards the end of his life, about the possibility of using psychoanalysis as a method of treatment: "...shortly before his death, he declared that he would be remembered as a pioneer in a new method of investigating mental activity, rather than as a therapist, and as we shall see, many grave doubts have arisen about the efficacy of psychoanalysis as a method of treatment...."

Dr. Eysenck is equally extreme. He condemns psychoanalysis as a method of treatment in so many declarations that one wonders if he is applying behavior modification techniques to his unwitting readers. One of Freud's techniques throughout his voluminous writings involved the setting up of 'straw dummies' alongside the particular analytic doctrine he was advocating: when the 'straw dummies' were blown away, Freud's pet theory stood out in bold relief. It appears to this reviewer that Dr. Eysenck uses exactly the same technique in that he points out feature after feature of analytic beliefs which cannot be proved scientifically, whereas the *sure cures* [sic] brought about by behavior modifications offer real hope to afflicted individuals: "However, even more impressive than the failure of Freudian therapy is the success of alternative methods, which are discussed in the next chapter...."

Dr. Eysenck correctly points to the flimsy evidence Freud used in making major conclusions from such cases as Little Hans, and The Wolf Man, to say nothing of the very sketchy evidence in The Schreber Case. The normal processes of free association which constitute the backbone of modern dynamic practices were not only lacking in some of the cases from which Freud derived his most flamboyant theories, but are also lacking in the interpretations of the lives of significant people

based on psychological reconstructions through biographical materials. These telling criticisms must be faced squarely by those of us who hope to rescue important dynamic insights which might otherwise be discarded, when we find it necessary to discard or minimize many classical doctrines that have been found to be untenable, or exaggerated, in terms of modern developments in dynamic organismic psychology.

Eysenck intuitively raises another very valid point: "Psychoanalysis may succeed because Freud's theories are correct; it might also succeed because it contains certain elements, quite unrelated to Freudian theories, which are beneficial to neurotic patients, such as sympathetic attention on the part of the analyst, helpful advice given by the analyst, and opportunity for the patient to discuss problems, etc...." Nevertheless, there is little reason to doubt that Freud's intuitions about his own rather severe neurosis form the basis for many metaphors which have led to increasing efficacy, not only of psychotherapy, but to the very languages of different cultures exposed to these metaphors, enabling people to express more accurately their awareness of inner psychological states. In short, analytic concepts have filled a linguistic as well as therapeutic void.

Woven in and out of Dr. Eysenck's caustic remarks about psychoanalytic methodology are concerns about generalizations and theoretical formulations which are imposed on hapless patients. Such authoritarian behavior has been widespread. I agree with these concerns. Ideally, autonomy is the aim of all therapy, education, religion and government. In the explosion of deviations from these rigid techniques of earlier years, good therapists intuitively follow a formulation recently articulated by Althea Horner, among others, that the theory is developed between patient and therapist instance by instance. I underscore this not only to buttress my belief that dynamic psychology is of great value, properly applied; but to highlight the difference between the dynamic approach and the mechanistic approach – the *soulless* approach – which we associate with Behaviorism and techniques of therapy arising from the Behaviorist philosophy.

In subsequent chapters, Dr. Eysenck deals with alternative methods of treatment, Freud's views on the development of the child, and the interpretation of dreams and psychopathology of every day life. It is clear from the criticisms in these three chapters that Dr. Eysenck has failed to make the crucial distinctions between the literal interpretations of Freud's theories, and the insights available when these same theories are taken in a metaphorical way. Those Freudians who take Freud's theories literally and who also insist that Freud's observations are scientific are the only ones to whom Dr. Eysenck's criticisms validly apply.

Freud can be made to appear ridiculous, and often he was, as in his finding *sexuality* at the bottom of all human behavior. Similarly, a rigid interpretation of his generalizations about childhood stages of development can be slanted in such a way as to appear absurd. A broader and more kindly interpretation of the pleasure principal, which apparently we all believe in and live by to survive, regardless of our theoretical formulations, must be addressed in any system of dynamic psychology. Freud, in describing psychobiological stages, addressed crucial issues which have subsequently been restudied and understood in ways which make them very useful therapeutically, and applicable to the understanding of our daily activities of living. Freud's overprized Oedipal conflict, superego formation and the psychological significance of boy-eroticism have crumbled but not been dismissed in the light of recent observations of the whole child. We must not forget the familiar lessons of sexual foreplay and erotic zones. Such workers as Spitz, Mahler, Winnicott, Guntrip, Erikson, Bowlby, the Ethologists and numerous human beings are also free from the archaic practices which most of us associate with the rigidities of J.B. Watson, the soullessness for the behavior modification movement (which nevertheless has its place in specific situations) and the cruel, repressive practices of rigid religious groups.

We do not doubt that personality development and spiritual growth can be understood in the light of modern dynamic psychology. They cannot be understood "scientifically"

in terms of so-called "scientific studies" behaviorists use to denigrate observations made from the standpoint not only of dynamic psychology, but of those learning theories which are based on dynamic approaches to the human individual. Mechanistic approaches cannot reveal the insights of William James, William McDougall, John Dewey, Herbart, Woodworth, Allport and other giants, whose primary aims were not therapeutic in nature.

Dr. Eysenck's last three chapters (6, 7, 8) deal with "The Experimental Study of Freudian Concepts," "Psycho-Babble and Pseudo-History," and terminate in a chapter suggesting a convivial wake and funeral: "Rest in Peace: An Evaluation." Serious students of Freudian concepts need to study Dr. Eysenck's remarks, especially in chapter six. Since it is clear to most of us that depth psychology can not be subjected to the techniques of natural sciences, the chapter is based on false premises (a major straw dummy) from the very beginning. In the course of chapter six, Eysenck comments that 'Freudian theories deal largely with emotions, and these are difficult to produce artificially.' What group has not used 'mental disorders' and 'emotional disorders' virtually synonymously?

The reification of these deeper Freudian dynamics have made us appear far more ridiculous than we really are. By the extension of Freudian metaphors to their extremes, and in literal terms, Eysenck denigrates dynamics that experienced psychoanalysts understand and could illustrate appropriately with case histories. Our current practices of avoiding couching our observations in terms of (inner core) Id psychology also often obscure the connections between 'body-language' and many symptoms seen especially in psychotic states, dreams and hallucinations. Unsophisticated people on the street often show a better grasp of deep psychodynamic processes than our sophisticated pseudo-scientific colleagues.

Dr. Eysenck could well be challenged to explain in B.M. terms, to give just one example, the ubiquitous association of money with fecal productions. American soldiers say, on payday, "The Eagle shits today." This example is not foreign to Freudian theory, but these phenomena exist in their own

right, whether Freud annunciated them or not. Perhaps it is asking too much to wonder whether Dr. Eysenck ever won a big pot in a crap game, or referred to a stingy loser as a 'tight wad.' People familiar with the evolution of feeling-meanings preceding and always antecedent to speech – and this goes far beyond the observations of official hermeneuticists – welcome the emphasis on language formation implicit in dynamic Freudian theories, as well as contributions to the understandings of word formation, sentence organization and the nuances of speech. None of these, and many other speech and thinking phenomena, can be adequately explained under the rubrics of behavior modification. If Dr. Eysenck insists otherwise, I can only say, "Up yours."

Eysenck admits that "Hermeneutics is the discipline concerned with interpretation and meaning..." and it should follow that therapists well trained in dynamic psychology become experts in the art of hermeneutics as applied to patients with emotional disturbances. I joined therefore in the funeral services and assumed that we were only burying that part of psychoanalysis claiming to be a discipline of natural science.

During the funeral service, my thoughts created a list of issues vital to the preservation of these dynamic insights brought to our attention by Sigmund Freud, his predecessors and his followers, but greatly altered and partially corrected by innumerable workers under the rubric of many different therapeutic 'schools.' I inappropriately laughed during the funeral at Dr. Eysenck's lugubrious invective, nodding when he made telling points, and ended up with these issues, raised in *The Decline and Fall of the Freudian Empire*, or raised in my mind as I pondered the fruits of Eysenck's scholarship and the irrelevance of his contrasting the art of hermeneutics with the very real but very modest accomplishments of behavior therapy.

So in the prayer I offered at the conclusion of Dr. Eysenck's funeral oration I beseeched the audience to ponder the following statements and questions, perhaps taking advantage of bowed heads and somber mood:

1) Classical Psychoanalytic therapies fail to penetrate the crucial developmental period – also avoided by Sigmund Freud in his ‘self analysis’ – cogently discussed by Eli Sagan in terms of one’s relationship with the pre-Oedipal mother. Freud also inadvertently camouflaged this period by overemphasis on the instinctual stages (oral, anal, phallic, genital), salvaged by Erikson’s ‘socialization’ of developmental processes.

2) Searles, Winnicott, Guntrip, and recently Krueger among many others have pointed out that in the therapeutic dyad, a symbiotic relationship must be established with a patient before separation and individuation can take place: this is deeply pre-Oedipal and involves the individual’s body image and sense of self, as Kohut also makes clear.

3) Sigmund Freud’s overemphasis on the Oedipal complex and superego formation resulted in these concepts acting as ‘screens’ to Classical Psychoanalysts, hiding from them an appropriate emphasis on the crucial pre-genital processes of establishing the bodily and psychological self.

4) A person with a good sense of self is free to deviate from the mores of the childhood family, questioning rather than living a life of compliance, with its sense of futility for the individual, that nothing matters [except being safe], and that life is not worth living. In short, living creatively is a healthy state, and compliance is a sick basis for life.

5) We have blindly accepted the grotesque theorizing with which analytic doctrines obscure the gender differences and the issues concerning the equality (or superiority) of women.

6) We must accept the severities of Freud’s illness, his vanity, his prima donna stance, his paranoia, his alleged ‘analysis’ of his own daughter, his banishing of dissenters – and yet keep his insights to stand or fall on their own merits, observed through our own experiences. We must attempt to see Freud’s pessimism as his personal problem, but also as a result of his unfamiliarity with Emergent Evolution, or Creative Evolution.

7) We are beginning to cope with Freud’s ambivalence about the reality of child abuse, investigate the devastating effects on a child’s development, and still respect the insights

he created concerning human dynamics that often help us treat these stunted patients.

8) Modern dynamic (organismic) psychology points out the failure of the Classical Analysts and the advocates of behavior modification to see specific dynamics in the matrix of the multiple-functioning processes of the whole person: i.e., *both tend to be reductionistic.*

9) We agree with Dr. Eysenck's mockery of armchair generalizations, which really are misleading without the 'due process' of free associations and knowledge from the context of each individual's unique stack of experience.

10) We can distance ourselves from the cult-structure, the existence of Institutes that are reminiscent of the numerous splinter groups in Christianity, and leave dynamic psychology and training as therapists to open-ended institutes and to universities with their broader base of prevailing knowledge.

I must stop this long prayer in the name of humanity, but I hope some of you can say *Amen*.

## FREUD, SCIENCE AND PROFESSOR JOSEPH S. JACOB: A REPLY

H.J. Eysenck  
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Professor Jacob may feel that in this review of *The Decline and Fall of the Freudian Empire*<sup>1</sup> he has criticized my work, but if I read it correctly, he has agreed with me almost completely. He states that "dynamic" psychology can never be part of natural science; I agree. Indeed, the main point of the book was that psychoanalysis is not part of the science which psychologists are trying to construct. Freud of course would have disagreed, as Gruenbaum in his classic *The Foundations of Psychoanalysis* has pointed out. Hermeneutics would not have suited Freud at all; he believed that he had created a truly scientific edifice, and the main point of the book was to point out that this was not so. If we could all agree on this, as Jacob does, then the debate would be very much clearer and easier.

Jacob is somewhat derisive about behavior therapy and its successors. He seems to equate it, quite erroneously, with the ancient shibboleths of Watson and Skinner. But as Eysenck & Martin have pointed out in their *Theoretical Foundations of Behavior Therapy*, behavior therapy derives its methods from modern learning theory, which has advanced greatly beyond Watson & Skinner, and stresses particularly cognitive processes, even in animals. If what I have said would lead Jacob to acquaint himself with modern principles of behavior therapy, he might wish to take back many of the things he said.

Much the same is true of the effectiveness of behavior therapy, which is much greater than he credits. To take but one example. Rachman and I suggested as early as 1965 that obsessive/compulsive disorders could more successfully be treated by means of the method of flooding with response

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1. *The Decline and Fall of the Freudian Empire* by Hans J. Eysenck. Scott-Townsend Publisher, Washington, D.C.

prevention, pioneered by Solomon in his experimental work with dogs. Rachman and Hodgson in their book on *Obsessions and Compulsions* have shown that the traditional success rate of orthodox treatments, including psychoanalysis of these disorders was around zero; using the methods we advocated, they found that a success rate of over 90% could be achieved – a result also replicated in two independent studies. This seems to me a validation of our approach, the kind of validation so sadly lacking in the whole psychoanalytic literature. (Malan, a leading British psychoanalyst, admitted in a recent book that he had never seen any successful treatment of such patients by psychoanalysis, and that obviously behavior therapy was the treatment of choice). Other examples could be given.

Jacob claims that there exists a large number of "insights" due to Freud, his predecessors and successors. The real question is whether the "insights" are true, to whom they apply, and under what circumstances. It is of course easy to claim "insights," but why should I, or anyone else, believe in them? Only scientific proof is admissible, and Jacob himself has admitted that no such proof exists, or can exist. What he is asking us to do, therefore, is to trust him and his colleagues. But that is difficult. Science is not built on trust, and in any case these alleged "insights" differ from therapist to therapist, and change over time.

Let me conclude by repeating that on the most important point Jacob and I agree: psychoanalysis and its derivatives are not part of natural science, as claimed by Freud. If all psychoanalysts could be persuaded to make this clear from the beginning, there would be no argument. When I entitled my book *The Decline and Fall of the Freudian Empire*, I was referring to its claim to be a true science. It may go on flourishing as an hermeneutic discipline; I doubt whether this is socially desirable, but whatever happens in that field is not part of my brief. What I have claimed as important is that psychology as a natural science must leave the Augean stable, and draw a clear line between science and pseudo-science. The two cannot easily live in harmony, and a divorce would surely be better than the current bickering and quarrelling!

BOOK REVIEW ARTICLE

ORIENTALS: AN EMERGING AMERICAN ELITE?

Richard Lynn  
*University of Ulster*

**The Geography of American Achievement**

*Nathaniel Weyl*

Scott-Townsend Publishers

P.O. Box 34070

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For a number of years it has become increasingly apparent from press reports that ethnic Oriental Americans are strikingly successful in High School, admission to elite universities and in occupational achievement, especially in science. Now Nathaniel Weyl in his new book *The Geography of American Achievement* (Scott-Townsend Publishers, 1989) has researched and documented these successes in impressive detail. He also provides a wealth of important new data on the occupational achievements of the major racial and ethnic subpopulations of the United States. He shows that the Oriental and Jewish peoples are contributing to American scientific excellence to a far greater extent than would be expected on the basis of their numbers in the population, while the Hispanics and Blacks are contributing less.

The methodology of the study was first developed in the author's studies carried out in the nineteen sixties and consists of the analysis of surname frequencies. The frequencies of the most common surnames of each ethnic group in the total population of United States is first calculated from Social Security lists, e.g. Cohen is the most common Jewish name, Wong the commonest Chinese name, etc. The frequencies with which these names appear in reference works of people who have achieved occupational distinction in various fields is then

examined, e.g. in *Who's Who in America* (general achievement), *American Men and Women of Science*, and similar works of reference for business, medicine and law. The frequencies of the names in the general population and in the reference works is then expressed as a ratio and multiplied by 100 to give a performance coefficient. A performance coefficient of 100 means that a name appears among the reference works of occupational distinction with the same frequency as in the general population. A coefficient of 200 indicates that the name appears twice as frequently in the reference works as in the general population, while 50 means that it appears only half as frequently. The names of each ethnic group are then averaged to give performance coefficients for the groups.

The results show remarkable disparities in the performance coefficients of different ethnic groups. A summary of these results is given in Table 1. The English obtain performance coefficients close to 100 in all fields of achievement and the same is true of all Northwest European stocks, i.e. Germans, Scots, Dutch, etc., which are reproduced in the Table. The Spanish, however, do poorly, with an average performance coefficient of 10, and so too do Blacks, with an average coefficient of 9. On the other hand, the Jews do considerably better than average with performance coefficients between 287-684 and averaging 488. Equally striking are some of the Oriental performance coefficients. The Chinese coefficients range from 24 in law to 784 in science and technology with an overall average of 271. The Koreans and Japanese also do well in science and technology with coefficients of 375 and 391 (the numbers from these groups in finance and law are too small to give reliable figures).

The use of reference books of eminent individuals as the criteria of achievement has the effect that the measures are largely derived from the middle aged and elderly. The authors wonder whether the same subpopulation differences are present among the young. He answers this question by an analysis of the 15,000 high school seniors who obtained the top scores as semifinalists in the National Merit Scholarships in 1987. Performance coefficients for different ethnic stocks were

derived as before by calculating the frequencies of the ethnic names among the semifinalists as a function of their frequencies in the population. The principal results were that the English obtained a performance coefficient of 53 and other Northwest European stocks obtained about the same value. The Hispanic coefficient was 10; the Jewish 339; the Chinese 1,097; the Korean 1,411 and the Japanese 218. These results show therefore that the Chinese are producing approximately 20 times the number of outstandingly gifted young Americans as the older English and other European stocks, which in turn are producing about five times the proportion of gifted youth as the Hispanics (Blacks were not included in this analysis).

It is frequently argued that the Anglo majority discriminates against minorities and that this is the reason for the underachievement of the latter in education and the world of work. Yet of the four principal minorities, only the Spanish and Blacks do worse than the Anglos, while the Jews and Orientals do much better. If discrimination were of any significance, it would be expected to operate against all four minorities. It seems obvious that this explanation, still so frequently appearing in sociological and psychological writings, does not stand up to examination.

The most likely explanation of the findings is that the different performance coefficients of the ethnic subgroups is a function of their intelligence levels. It is fairly well established that Jews and Orientals have higher mean IQs than Anglos, while the mean IQs of Hispanics and Blacks are lower. Quite small differences in the mean IQs of populations produce large multiplier effects at the extremes of the distribution. For instance, a population with a mean IQ of 102 has approximately twice as many individuals with IQs of 130+, as compared to a population with a mean IQ of 100; and a population with a mean IQ of 104 has approximately four times the numbers of gifted individuals at the 130+ IQ level. It is well established that intelligence is a significant determinant of occupational achievement, and probably an IQ of around 130 is required for the high levels of occupational success represented in *Who's Who* and other reference books of high achievers. Studies on

the intelligence of American Jews and Orientals suggest that their mean IQs are around 102-104, and hence their performance coefficients of between 200-500 can be accounted for.

Conversely, Hispanics and Blacks obtain lower IQs than Anglos. Hispanics typically obtain mean IQs in the low 90s, while the mean IQ of Blacks is approximately 85. The Black mean should produce approximately one seventeenth the proportion of individuals with IQs of 130+, as compared with the Anglos. This suggests that the Black performance coefficient of 9 is a little higher than might be predicted. Note, however, that the Black average is raised by the high coefficient of 18 for *Who's Who*, which lists prominent singers, boxers, musicians and sportsmen among whom Blacks tend to do well. In the more cerebral professions of science, medicine and law, the Black performance coefficients are just about what would be predicted from their mean IQs and the proportions with IQs of 130+.

The Hispanics do somewhat more poorly than expected, but this can be explained by the large Hispanic immigration which has swelled the numbers in the general population in recent years. The names appearing in the reference books of high achievement consist largely of the older generations and are drawn from a considerably smaller population base. All in all, therefore, the performance coefficients give a remarkably good fit with the mean IQs and with the proportions with IQs in excess of 130. Indeed, the fit is so good that it is probably unnecessary to consider whether there might be ethnic differences in work ethic, effort, socialization for achievement and similar motivational factors which almost certainly contribute to occupational success.

The next problem the author tackles is why the ethnic stocks should have the different intelligence levels. He confines himself largely to the problem of the Jews and Hispanics and has little to say on the Blacks and Orientals. In the case of the Jews, he cites centuries of eugenic social customs and beliefs, of which the most important has been the encouragement of rabbis to have children. Over the course of some 2,000 years, rabbis have had a high social standing and their positions have

been competed for and been filled by those of high intelligence. Additional factors may be that the Jews have been subjected to intermittent persecutions which the more intelligent may have been able to foresee and escape. It is a plausible theory and it is not easy to propose a better alternative.

In the case of the Hispanics, the author suggests that the Catholic church has exerted a dysgenic effect through the requirement of clerical celibacy. The result has been that large numbers of highly intelligent men and women have entered the church and failed to reproduce. Because intelligence is largely transmitted genetically, this would be expected to result in a decline in the mean IQ of Catholic populations over a number of generations. This thesis offers an explanation for the generally low performance coefficients of the Catholic ethnic American groups as well as the Hispanics. It is not easy to formulate a better alternative theory.

The broad results of the studies are that the Jewish population in the United States is retaining its excellence and is likely to continue to do so for the foreseeable future. It is, however, being displaced from its leading position among the American scientific elite by the Oriental stocks. The Chinese are already ahead of the Jews in their contribution to science and technology and among the gifted high school seniors they are over-represented, in comparison with the Jews, by a factor of more than two. Hence, in the future it is probable that the intellectual leadership of America will fall increasingly into the hands of the Oriental peoples, especially in science. It is still an open question whether they will achieve the same distinction in business, law and other fields.

The author concludes by considering some of the implications of his findings. He notes the well known fact that the Hispanic and Black American populations are increasing at a faster rate than the other ethnic groups, partly because of their higher birth rates and partly through the immigration of large numbers of Hispanics. By the year 2000 these two groups will comprise approximately one third of the school population of the United States. Projection of this trend forward indicates a majority of Hispanics and Blacks in the not too distant future.

This is likely to impair American scientific, technological and industrial leadership, which is already being challenged by the Japanese. He concludes by suggesting that tighter control of illegal immigration and more readily available birth control services would be desirable in an attempt to put a brake on this demographic trend.

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## BOOK REVIEWS

**Labyrinthe und Trojaburgen***Frithjof Hallman*

Vol. 1 (= Mannus Bibliothek, N.F. Bd. 29)

Bonn: Dieter Korell, 1988 (ISBN 0720-7158);

168 pp. in-8o

This stimulating little volume, inspired by the *Labyrinth-Studien* of Karl Kerényi, analyzes the symbolism of the spiral and its development into the labyrinth, and proceeds to present a typology of the labyrinths on an essentially archaeological basis. Particular attention is given to the labyrinths of northern Europe, known as *Trojaburgen*, and to their alleged connection with the Trojan legend. A major merit of the work is to provide the first extensive descriptive inventory of European labyrinths in almost a century. Although the author refers to the views of many other scholars in the field, his work suffers greatly from the lack of precise bibliographical references. Moreover, his etymologies often call for serious reservations, *e.g.*, when he connects the name of the *druids* with Sanskrit *druh-* 'bear malice' (p. 77) — actually the whole section on the origin of *Troja* — in *Trojaburg* would require serious revisions. However, both for the information on the sites and the discussion of the legends connected with them (including, *e.g.*, the interpretation of the tale of Sleeping Beauty as corresponding to the legend of Brynhild — assumed to be an incarnation of the sun plunged in its deep hibernal sleep [p. 101]!), the work deserves particular attention in spite of the serious objections a number of its not-always-sufficiently documented comparisons will prompt.

E.C.P.

**Die Entwicklung der Sprachwissenschaft Seit 1970***Gerhard Helbig*

Leipzig, V.E.B. Bibliographisches Institut, 1986

(ISBN 3-323-00004-8); 323 pp; D.M. 24.

This volume is conceived as a follow-up to the author's *Geschichte der neueren Sprachwissenschaft*, published in Leipzig in 1970, and focuses on what he calls the "communicative-pragmatic turnabout" in linguistics and grammatical theory – a shift in emphasis towards the thorough examination of the *function* of the elements of speech in communicative activity. The new orientation aims at greater methodological precision and at providing a better foundation for the integration of the linguistic sign system in the communicative and sociological context. Reviewing current grammatical theory, Helbig provides an insightful critical survey of the European school of linguistics from Saussure to glossematics, paying particular attention to the views of Weisgerber, and examines the development of American linguistics from structuralism to the "trace theory" and "case grammar", contrasting them with the Marxist-Leninistic basic positions on linguistics.

The second part of his work is then devoted to the detailed discussion of the trends falling under the label of "communicative, pragmatically oriented linguistics," *i.e.*, "Text-linguistik," Speech Act Theory, functional description of the communicative process, analysis of verbal intercourse, sociolinguistics, psycholinguistics, and hermeneutics as applied to linguistics. This rich array of subjects provides an excellent panorama of the research and thinking that goes on in these fields, with an interesting insight on the way Eastern European scholars view the achievements of their Western colleagues. There is much to learn and to ponder about for everyone in this well-documented volume!

E.C.P.

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